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Anthropometric Measurements of the Marathas

By

Irawati Karve

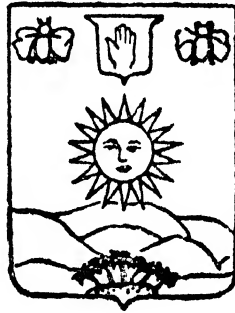DECCAN COLLEGE

Postgraduate and Research Institute

POONA

ANTHROPOMETRIC MEASUREMENTS
OF THE MARATHAS

By

Mrs. Irawati Karve, M.A. (Bombay), Ph.D. (Berlin)

Reader in Sociology, Deccan College Postgraduate and

Research Institute, Poona

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PREFACE

THIS paper is a continuation of the studies of the castes and tribes of the Marathi region undertaken a few years ago. The measurements on a Brahmin sub-caste have already been published.* This paper should have been published more than a year ago, when all the measurements were taken, but the statistical working out of the data has been delayed owing to circumstances beyond my control.

The University of Bombay gave a research grant of Rs. 800 for this project. I am very grateful for this help as also for the consideration it has shown to me in regard to the delay in the publication of the results.

I also take this opportunity to record my thanks for the supply of test-sera for blood-grouping to the authorities of the Army Blood Transfusion Centre at Ghorpuri, Poona.

I am also grateful to Mr. V. M. DANDEKAR of the Gokhale Institute of Economics and Politics, Poona, for guidance and advice in statistical work. The actual statistical work was done by Mr. S. K. VALIMBE, Mr. D. V. DEVDHAR, Mr. R. A. DATAR, and Mr. D. S. PHALAKE.

October 2, 1947.   I. KARVE.

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Anthropometric Measurements of the Marathas

THESE measurements were taken during the years 1943 and 1944. In all, 1,608 men and about fifty women were measured. I had begun by taking measurements of men and women but had to give up taking women's measurements as it proved very difficult to get women to submit to measurements. As some clans keep purdah, the recorder could not be placed at an easy distance to record the measurements as I announced them. Women generally wear their saris over their heads and do not like to bare the head for the most important measurements. These and other difficulties made it necessary for me to proceed with men's measurements only. All the measurements are those of adult males between the ages of 21 and 55. Every entry for age is an approximation, as few could tell their ages accurately.

The following measurements were recorded: Stature, height up to tragion, maximum head-length, maximum head-breadth, maximum bizygomatic breadth, bigonial breadth, inter-orbital breadth, orbito-nasal breadth, orbito-nasal arc, nasal length, nasal breadth, upper facial length, total facial length and horizontal circumference of head.

From these the following indices have been calculated:

Length-breadth index of the head (cephalic index), length-height index of the head, breadth-height index of the head, trans-fronto-parietal index, orbito-nasal index, nasal index, upper-facial index, total facial index, trans-cephalo-facial index, vertical cephalo-facial index, zygomatico-frontal index and zygomatico-mandibular index.

Eye colour was recorded with the aid of MARTIN's "Augenfarben-Tafel," skin-colour with the aid of the less satisfactory scale of von Luschan. Men and women generally apply a lot of oil to the hair which makes it slightly darker. The hair quantity on head and face was noted and wherever possible a small sample of the head-hair was collected for determining the form of the cross-section, the amount of pigmentation and hair character. Sometimes the Marathas shave their heads clean or crop them very close, keeping only a very small top-knot. It was felt as sacrilege by many to give a few strands of this knot, hence I could not get the samples of hair of all the Marathas I measured. In all I have over four hundred hair samples which I have not been able to examine for the lack of a microtome, microscope, constant temperature oven and other laboratory facilities. The quantity of hair was also described for moustache by the three simple categories of plenty, medium and scanty. The presence of the supra-

orbital ridges, prognathy and the shape of nose was also described. Blood grouping was also done for samples. The depression tile method was used.[1]

As the years 1943 and 1944 were war years, some difficulty was encountered in getting samples, as people tended to think that I was a re-cruiting agent of the government. People had also heard of blood-banks and fantastic stories of people being bled for purposes of transfusion were also current. It was for these reasons that I could not test the blood of each person measured. Sometimes I ran short of test-sera and could get neither a local donor of blood for preparing fresh test-sera nor supplies from Poona. The scarcity of photographic material and the high cost of printing and developing prevented me from taking photographs at each centre. A few of the photographs taken are given at the end.

REGION

The region in which the measurements were taken covered nearly all the Marathi districts of the Bombay Presidency. To these samples were added a few taken in the Hyderabad State during the year 1946. There are very few samples from C. P. and Berar. The bulk of the agricultural community there is made up of different types of Kunbis who have not yet begun to call themselves Marathas and hence I did not think it necessary to seek for Maratha samples there.

The Maratha region has three natural divisions marked by geo-graphical and climatic peculiarities. It is divided from west to east into three north-south zones.

1. The westernmost zone is a strip of narrow coast-land bounded by the Arabian Sea on the west and the 2,000 feet high wall of the Sahyadri range on the east. The districts of Thana, Kolaba, Ratnagiri and parts of Karwar are comprised in this. It is called "The Konkan." The temper-ature varies between 62° in winter to 98° in summer. The rainfall is about 90 inches. The main occupation is rice-growing and keeping gardens of cocoanut, areca-nut and recently of mangoes.

2. The second or the middle zone comprises the Sahyadri range proper with a strip of land about 15 to 25 miles wide on the eastern side. It is called the Mawal. The hill-top is jungle-land and on the lower slopes and the narrow valleys rice is grown. The rainfall is over 200 inches a year on the top of the Sahyadri range and the temperature varies between 55° minimum in winter to 90° in summer. The eastern portion of this

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[1]Medical Research Council, War Memorandum, No. 9, London, H. M. Stationery Office, 1943.

strip is undulating hilly ground well supplied with rivers and springs and much fruit and *bajra* and *jwar* (millet) is grown. The rainfall decreases rapidly from the hill ranges as one goes eastward. In the fruit-growing transition tract the average rainfall is barely 40 inches per year. The temperatures vary between 50° in winter to 100° in summer though on a few days it may go up to 107°. The western portions of the districts of Poona, Satara, Nasik and parts of West Khandesh are included in this region.

3. The third region is part of the great tableland that spreads between the eastern and western hills of peninsular India. But deep into it spines of the Sahyadri and Satpura penetrate as single hillocks or low chains of hills. Except for these the country is flat. The soil is black. Though interspersed with big rivers, this region suffers from a chronic dearth of water. The climate is continental, the minimum winter temperature being 50° and the maximum summer temperature is over 110°. The rainfall is round 35 inches. The soil is rich and fertile and can grow almost anything. Fruit and sugarcane growing on a very extensive scale have been practised in recent times since the inception of the canal system for the great rivers. *Jwar, bajra,* wheat and cotton are grown. It comprises the eastern portions of Poona, Satara, Nasik and West Khandesh and the whole of Nagar district and East Khandesh and the Marathi speaking portions of the Sholapur district and the Nizam's Dominions.

There are three groups for the three main regions and a fourth miscellaneous group comprising samples from the Nizam's Dominions, C. P. and Karnatak. Within each group there are sub-groups according to the sub-regions, though these cannot be said to be sharply differentiated.

The regions, sub-regions and the number of samples obtained in each are given below:

A	The Seaboard (Konkan)	
	1. Khed-Chiplun, etc.	110
	2. Ratnagiri, Deogad	63
	3. Malvan, Savantvadi	62
		235
B	The Middle Region (Maval or Ghatmatha)	
	4. Junnar, Khed, Haveli	47
	5. Ambegaon, Maval, Mulshi	80
	6. Javli, Patan, Bavda	64
		191

C		The Deccan Plateau	
C_1	7.	West Khandesh	121
	8.	East Khandesh Near Aurangabad	113
	9.	The Rest of East Khandesh	76˙
			310
C_2	10.	Kopargaon, Kanhegaon (Near Hyderabad Deccan)	108
	11.	Rest of Ahmednagar	96
	12.	Poona East	55
	13.	Wai, Satara, Koregaon	159
	14.	Karad, Ogalewadi, Walva	106
	15.	Rest of Satara, Sangli, Miraj	143
	16.	Kolhapur, Karvir and Kagal	110
			777
D		Miscellaneous Group	
	17.	Nizam's Dominions	44
	18.	Central Provinces	17
	19.	Karnatak	34
			95
		Grand Total	1,608

Khandesh could well have been included in the Deccan Plateau, but an examination of its populations shows that many communities have migrated there but recently. The whole of its western portion and the hilly northern region are Bhil areas. The rest of the northern portion is entirely occupied by recent immigrants from Gujarat while Bari, Vanjari and Gujar who are now marathised northern immigrants are found all over the district. The Marathi elements may have been recruited from any portions of the rest of the Maratha country and hence not knowing exactly the nature of its affinity to the rest of the Maratha region, it was thought advisable to keep it as a separate group.

"East Khandesh Near Aurangabad" (group No. 8) is shown as a group separate from the rest of East Khandesh because the measurements were taken at Chalisgaon on a bazar day where many farmers from just across the border (the Nizam's Dominions) were present. Actually part of

the measurements would thus have to be put in group No. 17, but as the exact location of the native place could not be found by us, this was kept as a separate group. Group No. 10 comprises labourers in sugar mills, and here, too, many labourers had come from the Nizam's Dominion which reaches upto the opposite bank of the river Godavari near Kanhegaon. For this reason the group was kept as it was. Also a part of Satara district should be included in the middle region (B), but as in Chalisgaon, some people from the eastern portions are also included in it. It was also noticed that the Satara Marathas contract marriages with the eastern group and so the whole group was put in the (C) section. After preparing this preliminary paper it is felt that a thorough analysis of the material according to much smaller regions and according to family names is necessary to understand fully the racial make-up of the Marathas. This work will be undertaken in the near future.

<center>THE COMMUNITY</center>

The Marathas are the land-owners and cultivators of Maharashtra and make up over 40 per cent of its population. It is, however, not one single social group as the common name implies today. The agricultural community of the Maratha country is made up of Kunbis, Marathas and Malis. The first two are dry farmers depending solely on the monsoon rains for their crop, while the Malis work on irrigated lands working their fields all the year round on well-water or canals and growing fruit, vegetables, sugarcane and some varieties of cereals. The growth of political consciousness has recently led to the dropping of the ancient caste name, Kunbi, and the taking up of the more glorified name, Maratha. The Malis have not been affected by this to any great extent. Thus in the Census Reports for 1901, 1911, 1921, 1931 etc., we find the following figures for Kunbis and Marathas.

For 1901 the following entry is found: 36,50,000 Marathas including Kunbis. These are again divided into (a) Maratha proper, 13,83,844. (b) Konkani Marathas 3,49,183. (c) Kunbis 19,17,477. (1901 Census for India, Vol. IX A, Part II, page 192.)

In 1911 the figure for Marathas is given as 32,79,496 (page 210) without giving the figures for Konkani and Maratha proper separately. This figure is almost double that of the sum of the two heads of Maratha proper and Konkan Maratha given in 1901, and hence seems to be wrong.

The Maratha Kunbi and Gujrat Kunbi are put together under one common head called "Kunbi." Of these Maratha Kunbis are given as 4,03,070 and Tirole Kunbi as 2,86,829. The figure for Kunbis is reduced

by 15,14,407 as compared to that given for 1901. These figures as they stand are obviously wrong. The Marathas had not doubled their numbers between 1901 and 1911 nor were the Kunbis reduced by almost three-fourths. Either the recorders had made wrong entries or what is more probable, "Kunbi" as a caste-category was no longer acceptable to cultivators who must have given up their old appellation, Kunbi, and taken up the caste name, Maratha.

In 1921 under the common heading Maratha and Kunbi, the figure 48,86,484 is given and a note added that this head includes Marathas, Gabit, Kunbi and Khandesh Kunbis. (Vol. VIII, Bombay, Part I, pages 185-189.) For 1931 under the same head the figure 42,85,200 is given, a drop of six hundred thousand in Maratha population. There was probably no drop in the population, but once again under an old heading some new communities were enumerated and some old ones dropped. In the Central Provinces and Berar the cultivator retains still the general title of Kunbi and is divided into numerous endogamous regional groups. In the Bombay Province the appellation, Kunbi, is retained to a certain extent on the sea-coast while it has almost vanished on the Deccan Plateau. In this study, Kunbis and Marathas have been considered as one because no Kunbi confesses to belong to a caste different from that of the Marathas. The process of marathising of the cultivating groups all over Maharashtra has been going on so that in a few years, the appellation "Maratha" will alone be applied to this group. There are endogamous sub-groups within this larger modern, politically conscious group. The endogamy is based on the principles of (1) common region and (2) hierarchy of birth. The Konkan group does not, as a rule, marry the Deccan group. The upland-plains-group keeps apart from the hill-group but not to the same extent as from the Konkan group. Thus there are at least three regional groups. Within each region the Marathas do not marry the Kunbis.

Among the Marathas there are circles of blue-bloodedness and consanguinity. Thus there is the "Panchkuli," that is to say, the blue-blooded "five clans" who, as far as possible, marry among themselves. The next grade is the "satkuli," which includes the first five plus two more who have been admitted by some families of the "five." Then there are the ninety-six clans" who include the first seven plus eighty-nine others who are all said to be true Marathas. There are, however, many family names among the Marathas which do not occur in the list of the original ninety-six and it is the endeavour of these to show that they have branched off from the ninety-six. Apart from these who call themselves Marathas, there are the Kunbis who are not supposed to be equals for marriage by the Marathas.

Marriages are arranged strictly among equals or in a hypergamous way. Daughters can be exchanged by those who are held to be equals, but from clans who stand lower in the social order brides can be received. However, a man of lower birth, if economically well off, can find a bride from a poverty stricken house of a clan of a higher order, and this way the Marathas have received quite an amount of blood from outside and given theirs to other communities. The Maratha country is dissected by the high Sahyadri ranges, and clans live in isolation and rivalry of other clans, so that people are reluctant to contract marriage outside of a particular region though there is no bar theoretically to such a marriage. Among the Marathas it is an ancient custom that no marriage shall be contracted with a clan with whom a past marriage connection cannot be traced. There is also the custom of cross-cousin marriage.

The Maratha clans are patriarchal. Each clan has a name which is used as a surname by all members of the clan. The clan group is strictly exogamous. Marriage is not, however, allowed with all the rest of the clans bearing other surnames, but is restricted to a few clans according to the customs described above. Many of these clan-names are exactly those found among the Rajputs or are Marathi versions of them. All these claim superiority over others. It may be noted that the aristocratic Konkan clans do not bear Rajput names and seem to be of very ancient origin. A great number of non-Rajput names seem to be of totemistic origin and belong to various animals or inanimate objects. The clan-names for the Deccan and Konkan Marathas are, in general, very different. Each clan is invariably associated with a small region of a few villages. One village has people of one or two clan-names only and people with one clan-name are all blood relations. Among these families one is that of the headman or Patil. All others also as relatives of the great family call themselves the Patil-family. In this way many Maratha families are called Patil or Deshmukh (the head of a region), but in Nagar, Poona and Satara every Patil or Deshmukh knows the actual surname of the clan and will tell his surname as More-Patil, Pavar-Deshmukh etc. In Khandesh, however, I found many Marathas of the younger generation who were unable to give their clan-name and contented themselves by the simple appellation of Patil. They have clan-names but they are not as conscious of clan-greatness and clan-rivalries as are the Marathas of Satara, Poona and Nagar. All these factors have split the community into various pockets of consanguine groups, and these factors will have to be taken into consideration when we compare the physical measurements of the Maratha groups given below.

In the tables given below only the number of cases in each such **group is given and for each measurement the mean, the standard deviation**

and standard error are given. The distribution of cases in class-intervals is not shown. At the end of these tables are given general tables for all measurements for the whole population measured, and in them is given the distribution for various class-intervals. As further analysis of this material, together with that collected for other castes of the Maratha region, is being undertaken, details of distribution for each group are not published in this paper.

Maratha measurements were taken by Dr. B. S. Guha and published in the Census Report of India, 1931. Dr. Guha measured in all fifty-nine Maratha students from the Fergusson College, Poona, and other institutions in Poona. Thus his sample represents, in one respect, a very selected Maratha group, as far fewer Marathas went in for collegiate education then than now. Even now they are not reckoned as an advanced community in regard to education. From another point of view it was a very mixed group, as students from all districts of the Maratha country attended that college and, as our results show that there are significant differences in the measurements for different regions, a detailed comparison of the results of the present investigation with those published by Dr. Guha is not possible.

The most interesting thing about the present measurements is that while they confirm the broad-headed element among Marathas discovered by previous investigators, they also point out that this element is not uniformly distributed among the Maratha population. Of all the Marathas, over 40 per cent possess broad heads, but different regions show a very marked difference as regards broad-headedness. Thus the Konkan group is predominantly narrow-headed while the Deccan, Maval and Khandesh groups seem to tend towards brachycephaly. It would be interesting to find out whether these regional differences as regards cephalic index are also found in other castes of Maharashtra, i. e., whether brachycephally is dependent on region or on caste.

STATURE

(In Centimetres)
TABLE NO. 1
† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	165.300 † 0.4448	4.6292 † 0.3144
2	63	164.627 † 0.7744	6.1202 † 0.5476
3	62	164.758 † 0.5374	4.7026 † 0.3800
Main Group A	235	164.977 † 0.3422	5.2154 † 0.2420
4	47	165.480 † 0.8442	5.7580 † 0.5968
5	80	163.400 † 0.6646	5.9158 † 0.4700
6	64	163.375 † 0.9278	7.4266 † 0.6560

Group	No. of Cases	Mean With Error	St. Deviation With Error
Main Group B	191	163.966 † 0.3086	4.3252 † 0.2182
7	121	162.649 † 0.4736	5.1768 † 0.3350
8	113	162.677 † 0.5212	5.5090 † 0.3684
9	76	163.842 † 0.6228	5.3992 † 0.4404
Main Group C₁	310	162.952 † 0.2924	5.3616 † 0.2068
10	108	163.074 † 0.5476	5.6606 † 0.3872
11	96	163.894 † 0.5366	5.2248 † 0.3794
12	55	164.645 † 0.7608	5.5826 † 0.5380
13	159	164.047 † 0.4486	5.6270 † 0.3172
14	105	164.271 † 0.4798	4.8842 † 0.3394
15	143	165.129 † 0.4516	5.3682 † 0.3192
16	110	163.972 † 0.5150	5.3718 † 0.3642
Main Group C₂	776	164.155 † 0.1956	5.4154 † 0.1382
17	44	162.318 † 0.8272	5.4564 † 0.5850
18	34	165.500 † 0.8866	5.1374 † 0.6270
19	17	164.970 † 0.7256	3.3064 † 0.5130
Main Group D	95	163.931 † 0.3304	3.1674 † 0.2336
Grand Total	1607	164.007 † 0.1382	5.5064 † 0.0978

HEIGHT OF HEAD (upto Tragion)
(In Millimetres)
TABLE NO. 2
† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	131.373 † 0.7452	7.7852 † 0.5032
2	63	133.849 † 0.8252	6.5250 † 0.5836
3	62	131.008 † 0.8384	6.5232 † 0.5930
Main Group A	235	131.944 † 0.4732	7.2158 † 0.3346
4	47	128.891 † 1.0712	7.2418 † 0.7574
5	80	131.150 † 0.8182	7.2948 † 0.5786
6	64	128.828 † 0.8418	6.7088 † 0.5938
Main Group B	191	130.121 † 0.5184	7.1224 † 0.3666
7	121	132.441 † 0.6792	7.4482 † 0.4802
8	113	131.888 † 0.8888	9.4274 † 0.6284
9	76	133.526 † 0.7590	6.5916 † 0.5368
Main Group C₁	310	132.512 † 0.4576	8.0350 † 0.3236
10	108	130.277 † 0.7822	8.1086 † 0.5530
11	96	130.021 † 0.7702	7.5462 † 0.5448
12	54	133.427 † 1.1674	8.6394 † 0.8254
13	159	132.768 † 0.5300	6.6592 † 0.3748
14	106	130.976 † 0.6942	7.0220 † 0.4908
15	143	132.372 † 0.6558	7.7940 † 0.4638
16	110	127.995 † 0.7064	7.3516 † 0.4994
Main Group C₂	776	131.140 † 0.2760	7.6472 † 0.1952
17	44	130.273 † 0.8496	5.6060 † 0.6008
18	34	131.906 † 1.2114	7.0394 † 0.8574
19	17	130.323 † 1.8316	7.5300 † 1.2982
Main Group D	95	130.840 † 0.7820	7.6800 ⊹ 0.5530
Grand Total	1607	131.386 † 0.1918	7.6360 † 0.1356

LENGTH OF HEAD

(In Millimetres)

TABLE NO. 3

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	184.536 † 0.6684	7.9872 † 0.4726
2	63	186.484 † 0.8170	6.4558 † 0.5776
3	62	187.113 † 0.8122	6.3690 † 0.5742
Main Group A	235	185.738 † 0.4426	6.7598 † 0.3128
4	47	185.542 † 0.9296	6.3462 † 0.6572
5	80	181.800 † 0.7852	6.9996 † 0.5552
6	64	185.344 † 0.9710	7.7474 † 0.6866
Main Group B	191	183.928 † 0.5296	7.2972 † 0.3746
7	121	182.326 † 0.6752	7.4094 † 0.4774
8	113	181.872 † 0.7034	7.4434 † 0.4974
9	76	183.816 † 0.7256	6.2992 † 0.5130
Main Group C_1	310	182.526 † 0.4100	7.1956 † 0.2900
10	108	181.296 † 0.6892	7.1380 † 0.4872
11	96	180.542 † 0.7108	6.9404 † 0.5026
12	55	182.300 † 0.9146	6.7588 † 0.6468
13	159	184.000 † 0.5486	6.8864 † 0.3880
14	106	182.349 † 0.6490	6.6574 † 0.4588
15	143	182.688 † 0.5368	6.3926 † 0.3796
16	110	183.645 † 0.7736	8.0920 † 0.5470
Main Group C_2	777	182.563 † 0.2540	7.0560 † 0.1796
17	44	181.182 † 1.1882	7.8612 † 0.8402
18	34	185.4412 † 1.2958	7.5336 † 0.9162
19	17	184.912 † 2.2462	9.2494 † 1.9894
Main Group D	95	183.374 † 0.8408	8.1782 † 0.5944
Grand Total	1608	183.227 † 0.1826	7.2964 † 0.1290

BREADTH OF HEAD

(In Millimetres)

TABLE NO. 4

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	141.227 † 0.5170	5.3920 † 0.3656
2	63	140.246 † 0.6520	5.1422 † 0.4610
3	61	142.205 † 0.6900	5.3416 † 0.4880
Main Group A	234	141.218 † 0.3512	5.3422 † 0.2484
4	47	144.883 † 0.9338	6.3758 † 0.6602
5	80	145.350 † 0.6422	5.7146 † 0.4540
6	64	142.343 † 0.6080	4.8296 † 0.4300
Main Group B	191	144.228 † 0.4176	5.7430 † 0.2954
7	1211	144.896 † 0.5532	6.0484 † 0.3912

Group	No. of Cases	Mean With Error	St. Deviation With Error
8	113	142.429 † 0.5858	6.2010 † 0.4142
9	76	140.737 † 0.6928	6.0118 † 0.4898
Main Group C₁	310	142.977 † 0.3596	6.3048 † 0.2542
10	108	143.556 † 0.5092	5.2594 † 0.3600
11	96	144.708 † 0.6444	6.2880 † 0.4564
12	55	147.144 † 0.8230	6.0766 † 0.5820
13	159	144.223 † 0.4832	6.0668 † 0.3418
14	106	143.877 † 0.5510	5.6434 † 0.3896
15	143	144.822 † 0.5102	6.0736 † 0.3608
16	110	143.991 † 0.5048	5.2630 † 0.3570
Main Group C₂	777	144.436 † 0.2116	5.8696 † 0.1496
17	44	142.318 † 0.7606	5.0140 † 0.5398
18	34	144.206 † 0.8364	4.8432 † 0.3914
19	14	142.500 † 1.3284	5.4468 † 0.9394
Main Group D	95	143.026 † 0.5220	5.0554 † 0.3692
Grand Total	1607	143.578 † 0.1486	5.9278 † 0.1050

MINIMUM FRONTAL BREADTH

(In Millimetres)

TABLE NO. 5

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	109	104.271 † 0.4344	4.4994 † 0.3072
2	63	104.643 † 0.5034	3.9536 † 0.3560
3	62	104.403 † 0.4990	3.8858 † 0.3528
Main Group A	234	104.406 † 0.2762	4.1860 † 0.1954
4	47	104.904 † 0.6320	4.2894 † 0.4468
5	80	105.100 † 0.4960	4.3982 † 0.3508
6	64	104.563 † 0.3934	3.0930 † 0.2782
Main Group B	191	104.872 † 0.2900	3.9666 † 0.2050
7	121	105.037 † 0.4320	4.7164 † 0.3054
8	113	104.314 † 0.3710	3.9004 † 0.2746
9	76	103.947 † 0.4394	3.7928 † 0.3108
Main Group C₁	310	104.506 † 0.2422	4.2232 † 0.1708
10	108	104.056 † 0.4432	4.5706 † 0.3134
11	96	104.688 † 0.4090	3.9642 † 0.2890
12	55	105.702 † 0.6740	4.9656 † 0.4766
13	159	105.337 † 0.3470	4.3364 † 0.2452
14	106	104.311 † 0.3920	4.0416 † 0.2766
15	143	104.843 † 0.3510	4.1580 † 0.2482
16	110	104.755 † 0.4026	4.1816 † 0.2846
Main Group C₂	777	104.792 † 0.1550	4.2844 † 0.1094
17	44	103.409 † 0.6850	4.5068 † 0.4844
18	34	104.029 † 0.6824	3.9372 † 0.4824
19	17	105.853 † 1.0324	4.2178 † 0.7300
Main Group D	95	104.068 † 0.4456	4.3050 † 0.3152
Grand Total	1607	104.648 † 0.1064	4.2234 † 0.0752

MAXIMUM BIZYGOMATIC BREADTH
(In Millimetres)
TABLE NO. 6
† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	132.155 † 0.4450	4.6318 † 0.3146
2	63	132.865 † 0.6602	5.2086 † 0.4668
3	62	134.210 † 0.5746	4.4878 † 0.4062
Main Group A	235	133.355 † 0.3130	4.7646 † 0.2214
4	47	134.862 † 0.8096	5.5196 † 0.5724
5	80	135.250 † 0.5796	5.1516 † 0.4098
6	64	134.219 † 0.5694	4.5712 † 0.4026
Main Group B	191	134.809 † 0.3670	5.0378 † 0.2594
7	121	135.087 † 0.4724	5.1634 † 0.3340
8	113	133.854 † 0.4596	4.8520 † 0.3250
9	76	132.500 † 0.5184	4.4826 † 0.3666
Main Group C_1	310	134.003 † 0.2846	4.9786 † 0.2014
10	108	134.889 † 0.4680	4.8298 † 0.3310
11	96	134.875 † 0.5708	5.5618 † 0.4036
12	55	137.282 † 0.5678	4.1710 † 0.4014
13	159	135.487 † 0.3834	4.7994 † 0.2710
14	106	134.915 † 0.4674	4.7774 † 0.3306
15	142	135.795 † 0.4106	4.8532 † 0.2904
16	110	133.991 † 0.4648	4.8402 † 0.3286
Main Group C_2	776	135.345 † 0.1780	4.9252 † 0.1258
17	44	133.500 † 0.7152	4.7096 † 0.5056
18	34	134.500 † 0.7658	4.4282 † 0.5406
19	17	136.441 † 0.0448	4.2692 † 0.7388
Main Group D	95	134.384 † 0.4768	4.6110 † 0.3372
Grand Total	1607	134.675 † 0.1246	4.9592 † 0.0880

BIGONIAL BREADTH
(In Millimetres)
TABLE NO. 7
† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	103.755 † 0.4824	5.0274 † 0.3412
2	63	103.135 † 0.6890	5.4382 † 0.4872
3	62	102.952 † 0.6624	5.1838 † 0.4684
Main Group A	235	103.377 † 0.3394	5.1712 † 0.2400
4	47	104.926 † 1.1000	7.5184 † 0.7778
5	80	105.350 † 0.5822	5.1752 † 0.4116
6	64	103.781 † 0.7524	5.9922 † 0.5320
Main Group B	191	104.720 † 0.4428	6.0920 † 0.3130
7	121	103.508 † 0.5360	5.7338 † 0.3790
8	113	103.225 † 0.5854	6.1958 † 0.4140
9	76	102.921 † 0.7122	6.1814 † 0.5036
Main Group C_1	310	103.261 † 0.3406	5.9682 † 0.2408
10	108	103.185 † 0.5022	5.1860 † 0.3550
11	96	104.917 † 0.6714	6.5532 † 0.4748
12	55	103.773 † 0.7574	5.5872 † 0.5356

Group	No. of Cases	Mean With Error	St. Deviation With Error
13	159	103.544 † 0.4538	5.6938 † 0.3210
14	106	104.368 † 0.5808	5.9516 † 0.4108
15	143	105.759 † 0.4056	4.8164 † 0.2868
16	110	102.809 † 0.5320	5.5498 † 0.3762
Main Group C$_2$	777	103.281 † 0.2040	5.6548 † 0.1442
17	44	104.989 † 0.6140	4.0310 † 0.4340
18	34	105.029 † 0.9676	5.6102 † 0.6842
19	17	107.088 † 1.0540	4.3070 † 0.7452
Main Group D	95	105.384 † 0.4768	4.7204 † 0.3372
Grand Total	1608	103.070 † 0.1424	5.6794 † 0.1006

INTER-ORBITAL BREADTH

(In Millimetres)

TABLE NO. 8

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	30.018 † 0.2583	2.7091 † 0.1827
2	63	30.190 † 0.3423	2.7171 † 0.2421
3	62	30.371 † 0.3638	2.8643 † 0.2572
Main Group A	235	30.157 † 0.1791	2.7450 † 0.1266
4	47	29.000 † 0.3011	2.0642 † 0.2129
5	80	29.875 † 0.2809	2.5126 † 0.1986
6	64	29.563 † 0.2449	1.9589 † 0.1731
Main Group B	191	29.555 † 0.1626	2.2469 † 0.1150
7	121	29.190 † 0.2310	2.5407 † 0.1633
8	113	28.920 † 0.2569	2.7305 † 0.1816
9	76	29.908 † 0.2909	2.5361 † 0.2057
Main Group C$_1$	310	29.268 † 0.1486	2.6174 † 0.1051
10	108	28.907 † 0.2388	2.4819 † 0.1689
11	96	29.479 † 0.2539	2.4878 † 0.1795
12	55	30.182 † 0.3104	2.3018 † 0.2195
13	159	30.082 † 0.2102	2.6505 † 0.1486
14	106	29.368 † 0.2631	2.7091 † 0.1861
15	143	30.119 † 0.2649	3.1679 † 0.1873
16	110	29.364 † 0.2381	2.4967 † 0.1683
Main Group C$_2$	777	29.659 † 0.0977	2.7218 † 0.0690
17	44	29.523 † 0.3464	2.2978 † 0.2449
18	34	30.794 † 0.4582	2.6719 † 0.3250
19	17	30.647 † 0.8132	3.3530 † 0.5750
Main Group D	95	30.179 † 0.2735	2.6657 † 0.1934
Grand Total	1608	29.675 † 0.0664	2.6633 † 0.0470

ORBITO-NASAL BREADTH

(In Millimetres)

TABLE NO. 9

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	94.118 † 0.3694	3.8310 † 0.2612
2	63	94.246 † 0.5752	4.5282 † 0.4066
3	62	94.854 † 0.4964	3.8664 † 0.3510
Main Group A	235	94.347 † 0.2658	4.0324 † 0.1878
4	47	95.223 † 0.6450	4.3838 † 0.4560
5	80	95.875 † 0.4950	4.3900 † 0.3500
6	64	95.906 † 0.4914	3.8838 † 0.3474
Main Group B	191	95.725 † 0.3078	4.2142 † 0.1728
7	121	93.739 † 0.4080	4.4512 † 0.2886
8	113	92.783 † 0.4138	4.3606 † 0.2926
9	76	93.500 † 0.4520	3.8970 † 0.3196
Main Group C_1	309	93.328 † 0.2470	4.3024 † 0.1746
10	108	93.740 † 0.4190	4.3170 † 0.2964
11	96	93.667 † 0.4176	4.0498 † 0.2952
12	55	95.481 † 0.5466	4.0114 † 0.3864
13	159	95.984 † 0.3570	4.4644 † 0.2524
14	106	95.406 † 0.4004	4.0874 † 0.2826
15	143	95.199 † 0.3850	4.5678 † 0.2722
16	110	92.718 † 0.4240	4.4084 † 0.2998
Main Group C_2	777	94.665 † 0.1612	4.4572 † 0.1140
17	44	92.092 † 0.6278	4.1326 † 0.4448
18	34	91.559 † 0.9670	5.6086 † 0.6833
19	17	95.676 † 1.0154	4.1470 † 0.7180
Main Group D	95	93.489 † 0.5034	4.8726 † 0.3560
Grand Total	1607	94.418 † 0.1112	4.4184 † 0.0786

ORBITO-NASAL ARC

(In Millimetres)

TABLE NO. 10

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	111.591 † 0.5386	5.6148 † 0.3808
2	63	113.230 † 0.7060	5.5732 † 0.4992
3	62	112.724 † 0.7172	5.6170 † 0.5070
Main Group A	235	112.330 † 0.3690	5.6286 † 0.2610
4	46	117.282 † 0.8780	5.9270 † 0.6208
5	80	117.100 † 0.6830	6.0804 † 0.4828
6	64	116.844 † 0.6734	5.3564 † 0.4762
Main Group B	190	117.058 † 0.4214	5.7800 † 0.2980
8	113	113.757 † 0.4554	4.8072 † 0.3220
7	121	115.376 † 0.5056	5.5312 † 0.3574

Group	No. of Cases	Mean With Error	St. Deviation With Error
9	75	112.500 † 0.6180	5.3214 † 0.4370
Main Group C₁	309	114.086 † 0.3050	5.3320 † 0.2158
10	108	111.389 † 0.5238	5.4128 † 0.3704
11	96	112.000 † 0.5190	5.0518 † 0.3670
12	55	114.864 † 0.6964	5.1330 † 0.4924
13	158	114.222 † 0.4900	6.1320 † 0.3464
14	105	115.662 † 0.5664	5.7744 † 0.4004
15	143	114.570 † 0.5590	6.6610 † 0.3954
16	110	113.518 † 0.5066	5.2826 † 0.3582
Main Group C₂	775	113.757 † 0.2138	5.9258 † 0.1512
17	44	109.000 † 1.0426	6.8924 † 0.7374
18	34	113.088 † 1.0530	6.1134 † 0.7446
19	17	112.618 † 1.7104	7.0288 † 1.2096
Main Group D	95	111.111 † 0.7070	6.8676 † 0.5000
Grand Total	1604	113.845 † 0.1500	5.9804 † 0.1060

NASAL LENGTH

(In Millimetres)

TABLE NO. 11

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	48.082 † 0.3494	3.6651 † 0.2471
2	63	47.587 † 0.4321	3.4296 † 0.3055
3	62	46.597 † 0.3933	3.0966 † 0.2781
Main Group A	235	47.557 † 0.2283	3.5997 † 0.1614
4	47	50.042 † 0.4322	2.9632 † 0.3056
5	80	48.838 † 0.3964	3.5452 † 0.2803
6	64	49.610 † 0.4988	3.9904 † 0.3527
Main Group B	191	49.393 † 0.2597	3.5892 † 0.1836
7	121	50.694 † 0.2853	3.1381 † 0.2017
8	113	50.062 † 0.3704	3.9377 † 0.2619
9	76	48.737 † 0.3610	3.1470 † 0.2553
Main Group C₁	310	49.984 † 0.2002	3.5257 † 0.1416
10	108	46.945 † 0.3413	3.5464 † 0.2413
11	96	48.094 † 0.4338	4.2503 † 0.3067
12	55	49.400 † 0.4446	3.2976 † 0.3144
13	159	49.302 † 0.3061	3.8595 † 0.2164
14	106	47.509 † 0.3932	4.0479 † 0.2780
15	142	48.493 † 0.2853	3.3995 † 0.2017
16	110	48.414 † 0.3514	3.6858 † 0.2485
Main Group C₂	776	48.447 † 0.1368	3.8111 † 0.0967
17	44	47.045 † 0.6021	3.9940 † 0.4257
18	34	49.118 † 0.5057	2.9723 † 0.3604
19	17	48.353 † 1.1470	4.7295 † 0.8111
Main Group D	95	48.021 † 0.3988	3.8867 † 0.2820
Grand Total	1607	48.701 † 0.0941	3.7706 † 0.0665

NASAL BREADTH

(In Millimetres)

TABLE NO. 12

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	36.236 † 0.2507	2.6298 † 0.1773
2	63	37.016 † 0.4019	3.1902 † 0.2842
3	62	36.710 † 0.3062	2.4113 † 0.2166
Main Group A	235	37.285 † 0.1804	2.7658 † 0.1276
4	47	36.043 † 0.3261	2.2356 † 0.2306
5	80	36.950 † 0.3332	2.9806 † 0.2356
6	64	35.750 † 0.3385	2.7080 † 0.2393
Main Group B	191	36.325 † 0.1999	2.7625 † 0.1413
7	121	36.339 † 0.2924	3.2160 † 0.2067
8	113	36.381 † 0.3075	3.2687 † 0.2174
9	76	36.474 † 0.3431	2.9910 † 0.2426
Main Group C₁	310	36.387 † 0.1802	3.1723 † 0.1274
10	108	35.847 † 0.2562	2.6622 † 0.1811
11	95	36.284 † 0.2458	2.3953 † 0.1738
12	55	36.964 † 0.3760	2.7887 † 0.2659
13	159	36.874 † 0.2192	2.7645 † 0.1550
14	106	36.104 † 0.3054	3.1440 † 0.2159
15	143	36.420 † 0.2277	2.7230 † 0.1610
16	110	36.136 † 0.2369	2.4847 † 0.1675
Main Group C₂	776	36.371 † 0.0982	2.7341 † 0.0694
17	44	35.886 † 0.3682	2.4421 † 0.2603
18	34	36.736 † 0.4375	2.5509 † 0.3095
19	17	37.118 † 0.5550	2.2881 † 0.3924
Main Group D	95	36.410 † 0.2546	2.4819 † 0.1801
Grand Total	1607	36.505 † 0.0707	2.8331 † 0.0500

UPPER FACIAL LENGTH

(In Millimetres)

TABLE NO. 13

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	65.566 † 0.3601	3.7771 † 0.2546
2	63	65.143 † 0.5795	4.5997 † 0.4093
3	61	64.312 † 0.4563	3.5637 † 0.3226
Main Group A	234	65.124 † 0.2601	3.9793 † 0.1840
4	47	66.489 † 0.6955	4.7680 † 0.4918
5	79	65.696 † 0.4747	4.2195 † 0.3357
6	63	66.175 † 0.5314	4.2181 † 0.3758
Main Group B	189	66.053 † 0.3163	4.3501 † 0.2237
7	121	64.760 † 0.3295	3.6251 † 0.2330
8	113	66.310 † 0.4135	4.3958 † 0.2924
9	75	65.853 † 0.5003	4.3304 † 0.3536

Group	No. of Cases	Mean With Error	St. Deviation With Error
Main Group C₁	309	65.592 † 0.2354	4.1383 † 0.1665
10	108	65.148 † 0.3394	3.5278 † 0.2400
11	95	64.642 † 0.3928	3.8286 † 0.2778
12	55	65.818 † 0.5506	4.0829 † 0.3893
13	159	67.484 † 0.3348	4.2214 † 0.2367
14	105	66.267 † 0.4524	4.6353 † 0.3199
15	141	66.503 † 0.3901	4.6316 † 0.2758
16	110	65.273 † 0.3941	4.1330 † 0.2786
Main Group C₂	773	66.031 † 0.1544	4.2935 † 0.1092
17	44	62.227 † 0.7231	4.7963 † 0.5113
18	34	66.647 † 0.5894	3.4367 † 0.4168
19	17	65.412 † 1.2219	5.0382 † 0.9641
Main Group D	95	64.368 † 0.4948	4.8225 † 0.3499
Grand Total	1600	65.716† 0.1070	4.2804 † 0.0757

TOTAL FACIAL LENGTH

(In Millimetres)

TABLE NO. 14

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	113.864 † 0.6118	6.3904 † 0.4326
2	63	114.151 † 0.9148	7.2376 † 0.6468
3	62	112.468 † 0.6936	5.4316 † 0.4906
Main Group A	235	113.572 † 0.4196	6.4064 † 0.2968
4	47	113.394 † 0.9576	6.5394 † 0.6770
5	79	111.032 † 0.6680	5.9024 † 0.4724
6	64	112.281 † 0.7780	6.1978 † 0.5502
Main Group B	190	112.037 † 0.4532	6.2066 † 0.3198
7	120	114.317 † 0.5500	5.9978 † 0.3888
8	113	114.305 † 0.5480	5.7962 † 0.3894
9	76	114.342 † 0.7056	6.1246 † 0.4990
Main Group C₁	309	114.319 † 0.3392	5.9364 † 0.2400
10	108	111.389 † 0.5042	5.2086 † 0.3568
11	96	111.646 † 0.7082	6.9150 † 0.5008
12	55	113.118 † 0.8526	6.2966 † 0.6028
13	159	113.796 † 0.5000	6.2786 † 0.3536
14	106	112.217 † 0.5488	5.6232 † 0.3882
15	143	112.262 † 0.4880	5.8072 † 0.3450
16	110	113.791 † 0.5744	5.9972 † 0.4062
Main Group C₂	777	112.649 † 0.2184	6.0620 † 0.1544
17	44	110.682 † 0.8596	5.6740 † 0.6080
18	34	112.970 † 1.0650	6.1830 † 0.7530
19	17	111.794 † 2.1332	8.7828 † 1.5094
Main Group D	95	111.700 † 0.6702	6.5070 † 0.4740
Grand Total	1606	112.977 † 0.1548	6.1792 † 0.1096

CEPHALIC INDEX

TABLE NO. 15

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	76.645 † 0.4051	4.2383 † 0.2864
2	63	75.381 † 0.4689	3.7108 † 0.3553
3	61	76.197 † 0.5663	4.4133 † 0.4004
Main Group A	234	76.188 † 0.2730	4.1663 † 0.1930
4	47	78.255 † 0.6708	4.5900 † 0.4744
5	80	80.063 † 0.4863	4.3401 † 0.3439
6	64	76.969 † 0.5485	4.3838 † 0.3879
Main Group B	191	78.581 † 0.3333	4.5968 † 0.2356
7	121	79.678 † 0.4437	4.8721 † 0.3137
8	113	78.389 † 0.1533	4.8101 † 0.3206
9	76	76.724 † 0.5569	4.8467 † 0.3938
Main Group C_1	310	78.484 † 0.2823	4.9627 † 0.1996
10	108	79.287 † 0.4181	4.2364 † 0.2956
11	96	80.177 † 0.4923	4.8147 † 0.3481
12	55	80.982 † 0.6624	4.9037 † 0.4684
13	159	78.528 † 0.3680	4.6309 † 0.2602
14	106	79.094 † 0.4453	4.5758 † 0.3149
15	143	79.434 † 0.3752	4.4777 † 0.2653
16	110	78.591 † 0.4415	4.6209 † 0.3122
Main Group C_2	777	79.264 † 0.1664	4.6306 † 0.1177
17	44	78.864 † 0.5956	3.9404 † 0.4241
18	34	77.882 † 0.7573	4.4066 † 0.5355
19	17	77.177 † 1.2550	5.1670 † 0.8885
Main Group D	95	78.2105 † 0.4469	4.3468 † 0.3160
Grand Total	1607	78.522 † 0.1180	4.7211 † 0.0834

HEIGHT OF HEAD AND LENGTH OF HEAD INDEX

TABLE NO. 16

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	71.373 † 0.4476	4.6586 † 0.3166
2	63	71.722 † 0.4390	3.4366 † 0.3104
3	62	70.758 † 0.8308	6.5155 † 0.3874
Main Group A	235	70.304 † 0.3246	4.9430 † 0.2296
4	47	71.287 † 1.1236	7.6818 † 0.7854
5	80	72.275 † 0.5212	4.6248 † 0.3684
6	64	69.625 † 0.5076	4.0198 † 0.3590
Main Group B	191	71.144 † 0.3976	5.4640 † 0.2810
7	121	72.872 † 0.4794	5.2412 † 0.3390
8	113	72.562 † 0.5196	5.4928 † 0.3674
9	76	72.737 † 0.5012	4.3312 † 0.3544
Main Group C_1	310	72.726 † 0.2924	5.1160 † 0.2068
10	108	71.667 † 0.5068	5.2360 † 0.3584

Group	No. of Cases	Mean With Error	St. Deviation With Error
11	96	72.229 † 0.5140	5.0022 † 0.3634
12	55	73.355 † 0.7170	5.2862 † 0.5070
13	159	72.393 † 0.3422	4.2758 † 0.2420
14	104	72.077 † 0.5484	5.5626 † 0.3878
15	142	72.585 † 0.3842	4.5430 † 0.2718
16	109	69.867 † 0.4188	4.3348 † 0.2962
Main Group C₂	773	71.976 † 0.1774	4.8980 † 0.1254
17	44	72.273 † 0.7248	4.7732 † 0.5124
18	34	71.206 † 0.8148	4.7164 † 0.5762
19	17	71.029 † 1.3988	5.7388 † 0.9892
Main Group D	95	71.668 † 0.5076	4.9142 † 0.3590
Grand Total	1604	71.905 † 0.1266	5.0376 † 0.0896

HEIGHT OF HEAD AND BREADTH OF HEAD INDEX

TABLE NO. 17

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	93.282 † 0.6076	6.3462 † 0.4296
2	63	95.375 † 0.5776	4.5478 † 0.4084
3	61	93.303 † 1.0524	8.1994 † 0.7442
Main Group A	234	93.851 † 0.4280	6.5204 † 0.3026
4	47	90.947 † 1.6810	11.5102 † 1.1886
5	80	90.325 † 0.5690	5.0556 † 0.4022
6	64	90.750 † 0.6330	5.0316 † 0.4476
Main Group B	191	90.620 † 0.5194	7.1544 † 0.3672
7	121	91.550 † 0.5398	5.9018 † 0.3816
8	113	92.898 † 0.6680	7.0776 † 0.4724
9	76	95.026 † 0.5992	5.1926 † 0.4238
Main Group C₁	310	92.893 † 0.3610	6.3286 † 0.2552
10	108	90.926 † 0.6188	6.4048 † 0.4376
11	96	90.041 † 0.5302	5.1622 † 0.3750
12	55	90.773 † 0.8534	6.3024 † 0.6034
13	159	92.368 † 0.4424	5.5482 † 0.3128
14	104	91.500 † 0.7068	7.1852 † 0.4998
15	142	90.430 † 0.4542	5.3820 † 0.3208
16	109	89.151 † 0.5374	5.5804 † 0.3800
Main Group C₂	773	91.021 † 0.2158	5.9692 † 0.1526
17	44	91.636 †·0.9610	6.3482·† 0.6798
18	34	91.912 † 0.8178	4.7332 † 0.5782
19	17	91.382 † 1.2182	4.9898 † 0.8614
Main Group D	95	91.689 † 0.5704	5.5292 † 0.4034
Grand Total	1603	91.788 † 0.1592	6.3438 † 0.1126

TRANSFRONTO-PARIETAL INDEX
TABLE NO. 18
† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	109	74.0367 † 0.2687	2.8052 † 0.1900
2	63	74.6984 † 0.3532	2.8034 † 0.2497
3	61	73.6230 † 0.3623	2.8290 † 0.2562
Main Group A	233	74.1073 † 0.1905	2.8270 † 0.1310
4	47	72.9362 † 0.5341	3.662 † 0.3777
5	80	72.4375 † 0.3773	3.375 † 0.2668
6	64	73.6094 † 0.3179	2.5420 † 0.2247
Main Group B	191	72.9529 † 0.2331	3.222 † 0.1649
7	121	72.5537 † 0.2495	2.745 † 0.1764
8	113	73.5586 † 0.3277	3.484 † 0.2318
9	76	74.0000 † 0.3234	2.819 † 0.2286
Main Group C₁	310	73.2645 † 0.1762	3.103 † 0.1246
10	108	72.6296 † 0.2826	2.937 † 0.1999
11	96	72.7292 † 0.3246	3.181 † 0.2295
12	55	72.0000 † 0.5098	3.781 † 0.3605
13	159	73.2453 † 0.2685	3.386 † 0.1899
14	106	72.6226 † 0.2969	3.056 † 0.2099
15	143	72.5385 † 0.2759	3.229 † 0.1951
16	110	72.9091 † 0.3033	3.181 † 0.2146
Main Group C₂	777	72.7452 † 0.1165	3.247 † 0.0824
17	44	72.6364 † 0.4036	2.662 † 0.2854
18	34	72.3530 † 0.5011	2.908 † 0.3543
19	17	74.2940 † 0.6793	2.786 † 0.4804
Main Group D	95	72.8316 † 0.2920	2.831 † 0.2065
Grand Total	1606	73.0729 † 0.2499	3.154 † 0.1767

ORBITO-NASAL INDEX
TABLE NO. 19
† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	118.518 † 0.4146	4.3018 † 0.2932
2	53	120.167 † 0.5910	4 6548 † 0.4178
3	62	118.887 † 0.5626	4.3908 † 0.3978
Main Group A	235	119.057 † 0.2936	4.4628 † 0.2076
4	46	123.370 † 0.8778	5.9258 † 0.6208
5	80	122.275 † 0.6536	5.8171 † 0.4622
5	80	122.275 † 0.6536	5.8171 † 0.4622
6	64	122.125 † 0.8474	6.7542 † 0.5992
Main Group B	190	122.489 † 0.4000	5.6226 † 0.2900
7	120	123.066 † 0.4436	4.8246 † 0.3136
8	113	122.668 † 0.4524	4.7740 † 0.3198
9	75	120.620 † 0.5860	5.0422 † 0.4144
Main Group C₁	308	122.325 † 0.2858	4.9822 † 0.2020

Group	No. of Cases	Mean With Error	St. Deviation With Error
10	108	119.092 † 0.4630	4.7778 † 0.3274
11	96	120.062 † 0.5042	4.9054 † 0.3564
12	55	120.591 † 0.7282	5.3688 † 0.5148
13	158	119.158 † 0.4024	5.0256 † 0.2846
14	105	121.443 † 0.5252	5.3502 † 0.3714
15	143	120.619 † 0.5044	6.0034 † 0.3566
16	110	122.427 † 0.4746	4.9440 † 0.3356
Main Group C₂	775	120.406 † 0.1928	5.3342 † 0.1362
17	44	118.728 † 0.7810	5.1478 † 0.5522
18	34	119.912 † 0.9432	5.4698 † 0.6670
19	17	117.853 † 0.9886	4.0356 † 0.6992
Main Group D	95	118.995 † 0.5268	5.0954 † 0.3720
Grand Total	1603	120.740 † 0.1334	5.3078 † 0.0942

NASAL INDEX

TABLE NO. 20

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	78.955 † 0.7450	7.7928 † 0.5268
2	63	78.325 † 1.1366	9.0022 † 0.8036
3	62	79.242 † 0.9250	7.2616 † 0.6542
Main Group A	235	78.862 † 0.5216	7.9762 † 0.3688
4	47	72.563 † 1.0140	6.9274 † 0.7170
5	80	76.225 † 0.9944	8.8736 † 0.7032
6	64	72.719 † 1.0752	8.5818 † 0.7602
Main Group B	191	74.149 † 0.6150	8.4806 † 0.4348
7	121	72.442 † 0.7786	8.5442 † 0.5502
8	113	73.235 † 0.8714	9.2460 † 0.6162
9	76	75.210 † 0.9364	8.1426 † 0.6622
Main Group C₁	310	73.410 † 0.4982	8.7526 † 0.3522
10	108	76.907 † 0.7036	7.2898 † 0.4976
11	95	75.942 † 0.7840	7.6202 † 0.5542
12	55	74.845 † 0.9500	7.0216 † 0.6718
13	159	75.248 † 0.6222	7.8152 † 0.4400
14	106	75.085 † 0.8302	8.5270 † 0.5870
15	142	75.000 † 0.6902	8.2036 † 0.4880
16	110	71.698 † 0.7760	8.3278 † 0.5628
Main Group C₂	775	75.541 † 0.2850	7.9128 † 0.2016
17	44	76.500 † 1.1604	7.6710 † 0.8206
18	34	75.206 † 1.1270	6.5462 † 0.7970
19	17	77.382 † 1.4190	5.8228 † 1.0034
Main Group D	95	76.194 † 0.7024	6.8220 † 0.4976
Grand Total	1606	75.489 † 0.2068	8.2650 † 0.1462

UPPER FACIAL INDEX

TABLE NO. 21

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	49.191 † 0.2855	2.9798 † 0.2018
2	63	49.032 † 0.4035	3.1896 † 0.2853
3	61	48.034 † 0.3798	2.9523 † 0.2686
Main Group A	234	48.846 † 0.2007	3.0569 † 0.1419
4	47	49.553 † 0.5880	4.0210 † 0.4158
5	79	48.696 † 0.4110	3.6413 † 0.2906
6	63	49.365 † 0.4780	3.7832 † 0.3380
Main Group B	189	49.132 † 0.2761	3.7841 † 0.1952
7	121	48.000 † 0.2790	3.0551 † 0.1973
8	113	49.504 † 0.3558	3.7712 † 0.2516
9	75	49.800 † 0.4054	3.4987 † 0.2866
Main Group C_1	309	48.987 † 0.2009	3.5201 † 0.1421
10	108	48.370 † 0.2616	2.7032 † 0.1850
11	95	47.642 † 0.2978	2.8881 † 0.2106
12	55	47.982 † 0.4292	3.1696 † 0.3035
13	159	49.899 † 0.2886	3.6276 † 0.2041
14	105	49.152 † 0.3547	3.6227 † 0.2508
15	140	48.936 † 0.2989	3.5248 † 0.2114
16	110	48.800 † 0.3578	3.7398 † 0.2529
Main Group C_2	772	48.838 † 0.1247	3.4534 † 0.0701
17	44	46.705 † 0.5730	3.7898 † 0.4052
18	34	49.618 † 0.5407	3.1397 † 0.3823
19	17	47.941 † 0.7499	3.0782 † 0.5302
Main Group D	95	47.968 † 0.1208	3.7110 † 0.0854
Grand Total	1599	48.851 † 0.0863	3.4403 † 0.0610

TOTAL FACIAL INDEX

TABLE NO. 22

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	85.682 † 0.4816	5.0174 † 0.3406
2	63	85.913 † 0.6746	5.3228 † 0.4770
3	62	84.113 † 0.6198	4.8458 † 0.4382
Main Group A	235	85.330 † 0.3340	5.0888 † 0.2362
4	47	84.351 † 0.7712	5.2556 † 0.5454
5	79	82.209 † 0.5032	4.4350 † 0.3558
6	64	83.813 † 0.7032	5.5958 † 0.4972
Main Group B	190	83.279 † 0.3732	5.1124 † 0.2640
7	120	84.800 † 0.4692	5.1052 † 0.3318
8	113	85.429 † 0.4744	5.0090 † 0.3354
9	76	86.342 † 0.5758	4.9868 † 0.4072
Main Group C_1	309	85.409 † 0.2898	5.0604 † 0.2048
10	108	82.648 † 0.4154	4.2778 † 0.2938

Group	No. of Cases	Mean With Error	St. Deviation With Error
11	96	82.208 † 0.5112	4.9766 † 0.3616
12	55	82.409 † 0.6622	4.8774 † 0.4682
13	159	84.192 † 0.4092	5.1282 † 0.2894
14	106	82.217 † 0.4732	4.8368 † 0.3346
15	142	82.671 † 0.3848	4.5162 † 0.2720
16	110	85.027 † 0.5540	5.8100 † 0.3916
Main Group C₂	776	83.314 † 0.1808	5.0026 † 0.1278
17	44	82.864 † 0.6162	4.0458 † 0.4356
18	34	84.029 † 0.9186	5,3256 † 0.6496
19	17	81.853 † 1.2514	5.1270 † 0.8848
Main Group D	95	83.100 † 0.4690	4.5320 † 0.3316
Grand Total	1605	83.996 † 0.1284	5.1152 † 0.0908

TRANS-CEPHALO FACIAL INDEX

TABLE NO. 23

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	94.473 † 0.2870	2.9959 † 0 2029
2	63	94.778 † 0.4765	3.7710 † 0.3369
3	61	94.573 † 0.3894	3.0274 † 0.2753
Main Group A	234	94.581 † 0.2112	3.2185 † 0.1494
4	47	93.106 † 0.4291	2.9275 † 0.3034
5	80	93.250 † 0.4238	3.7794 † 0.2997
6	64	94.412 † 0.4069	3.2409 † 0.2877
Main Group B	191	93.607 † 0.2519	3.4701 † 0.1781
7	121	93.446 † 0.2887	3.1621 † 0 2041
8	113	93.858 † 0.3817	4.0471 † 0.2699
9	76	94.224 † 0.3537	3.0702 † 0.2501
Main Group C₁	310	93.787 † 0.1991	3.4932 † 0.1408
10	108	94.130 † 0.3289	3.4061 † 0.2326
11	96	94.146 † 0.3752	3.6650 † 0.2655
12	55	93.291 † 0.4928	3.6435 † 0.3485
13	159	94.094 † 0.2761	3.4699 † 0.1953
14	106	93.925 † 0.2921	2.9930 † 0.2065
15	142	94.043 † 0.2847	3.3567 † 0.2013
16	110	93.273 † 0.3260	3.4063 † 0.2305
Main Group C₂	776	93.900 † 0.1227	3.4062 † 0.0868
17	44	93.841 † 0.4574	3.0206 † 0 3310
18	34	93.529 † 0.5839	3.3924 † 0.4128
19	17	95.882 † 1.0307	4.2752 † 0.4349
Main Group D	95	94.095 † 0.1212	3.7254 † 0.0857
Grand Total	1606	93.954 † 0.0855	3.4155 † 0.0605

VERTICAL CEPHALO-FACIAL INDEX

TABLE NO. 24

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	86.973 † 0.5428	5.694 † 0.3838
2	63	85.6497 † 0.7684	6.100 † 0.5426
3	60	86.467 † 0.7402	5.373 † 0.5236
Main Group A	233	86.4872 † 0.3810	5.816 † 0.2694
4	47	87.117 † 1.4346	9.834 † 1.0141
5	79	84.893 † 0.7162	6.368 † 0.5066
6	64	87.219 † 0.8040	6.432 † 0.5686
Main Group B	190	86.226 † 0.5398	7.440 † 0.3816
7	120	86.667 † 0.5962	6.532 † 0.4216
8	113	86.951 † 0.6742	7.168 † 0.4768
9	76	85.526 † 0.6932	6.044 † 0.4902
Main Group C₁	309	86.490 † 0.3786	6.660 † 0.2680
10	108	85.537 † 0.6342	6.590 † 0.4484
11	96	86.000 † 0.6414	6.284 † 0.4536
12	55	84.173 † 0.8728	6.472 † 0.6172
13	149	85.822 † 0 5308	6.482 † 0.3754
14	104	85.7692 † 0.7106	7.246 † 0.5024
15	142	85.049 † 0.5136	6.122 † 0.3632
16	109	89.152 † 0.6282	6.560 † 0.4444
Main Group C₂	773	86.074 † 0.2368	6.586 † 0.1676
17	44	85.227 † 1.1104	7.343 † 0.7852
18	34	85.971 † 0.9444	5.476 † 0.6678
19	17	86.088 † 1.9386	7.972 † 1.3708
Main Group D	95	85.647 † 0.3148	3.013 † 0.2226
Grand Total	1600	86.206 † 0.1654	6.588 † 0.1170

ZYGOMATICO FRONTAL INDEX

TABLE NO. 25

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	109	78.404 † 0 2017	2.161 † 0.1463
2	63	78.827 † 0.3099	2.459 † 0.2191
3	62	77.871 † 0.3264	2.570 † 0.2312
Main Group A	234	78.376 † 0.1631	2.467 † 0.1153
4	46	77.736 † 0.4306	2.921 † 0.3045
5	80	77.812 † 0.3249	3.261 † 0.2298
6	64	78.156 † 0.3646	2.450 † 0.2578
Main Group B	190	77.963 † 0.2001	2.916 † 0.1415
7	121	77.736 † 0.2115	2.552 † 0.1496
8	113	78.177 † 0.2679	2.848 † 0.1894
9	76	78.671 † 0.2818	2.457 † 0.1993
Main Group C₁	310	78.125 † 0.1510	2.658 † 0.1068

Plate 1

MARATHA PHYSICAL TYPES: POONA DISTRICT
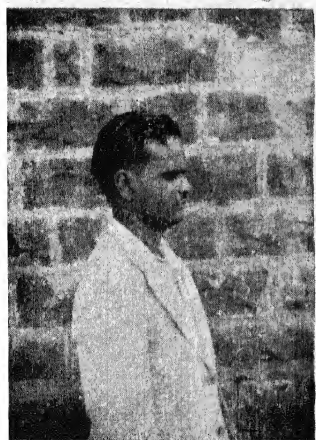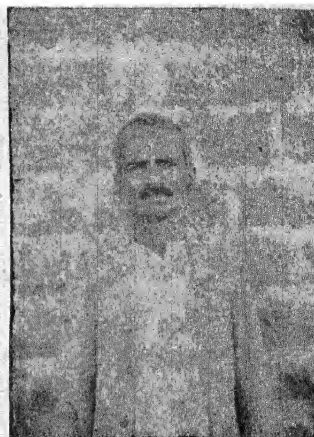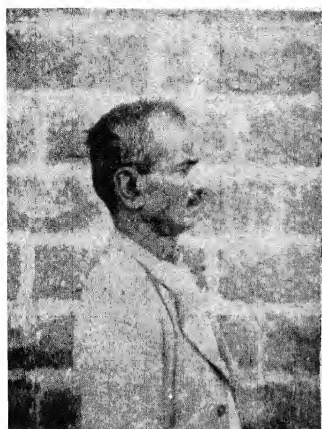
Plate II

MARATHA PHYSICAL TYPES: RATNAGIRI DISTRICT

Plate III

MARATHA PHYSICAL TYPES: RATNAGIRI DISTRICT

Plate IV
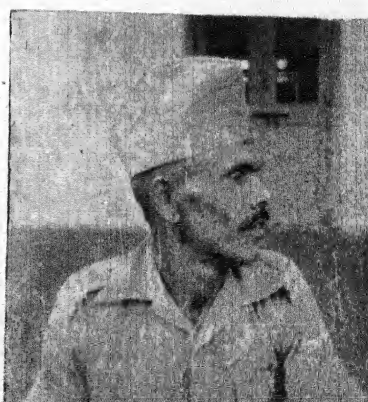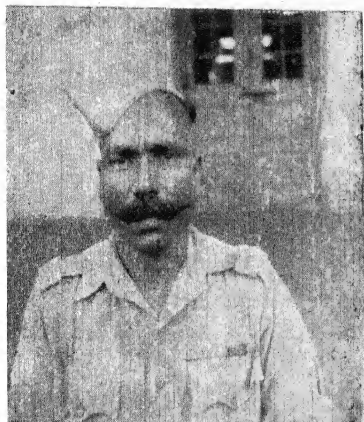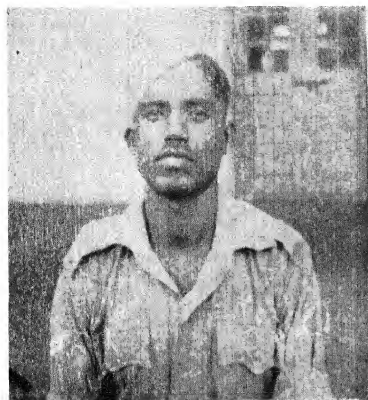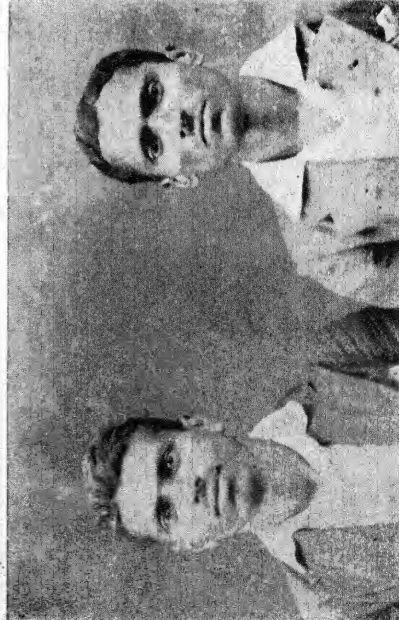
MARATHA PHYSICAL TYPES: SATARA DISTRICT

Group	No. of Cases	Mean With Error	St. Deviation With Error
10	108	77.194 † 0.2473	2.570 † 0.1749
11	96	77.229 † 0.2915	2.856 † 0.2061
12	55	77.164 † 0.4214	3.125 † 0.2980
13	159	77.862 † 0.2249	2.836 † 0.1590
14	106	77.406 † 0.2511	2.585 † 0.1775
15	142	77.204 † 0.2385	2.842 † 0.1687
16	110	78.2000 † 0.2671	2.801 † 0.1889
Main Group C₂	776	77.506 † 0.1008	2.808 † 0.0712
17	44	77.386 † 0.4350	2.865 † 0.3077
18	34	77.441 † 0.4873	2.829 † 0.3445
19	17	77.647 † 0.5487	2.244 † 0.3880
Main Group D	95	77.453 † 0.1692	1.624 † 0.1197
Grand Total	1605	77.804 † 0.0683	2.743 † 0.0487

ZYGOMATICO MANDIBULAR INDEX

TABLE NO. 26

† = Plus Minus

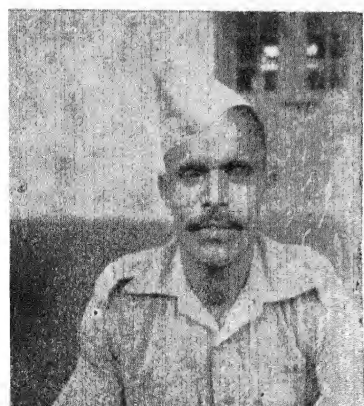| Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	78.018 † 0.3229	3.386 † 0.2283
2	63	77.746 † 0.4848	3.848 † 0.3428
3	62	76.693 † 0.5031	3.961 † 0.3557
Main Group A	235	77.596 † 0.2411	3.696 † 0.1705
4	47	77.851 † 0.6760	4.634 † 0.4780
5	80	77.912 † 0.4014	3.591 † 0.2838
6	64	77.406 † 0.4739	3.791 † 0.3351
Main Group B	191	77.728 † 0.2837	3.921 † 0.2006
7	121	76.636 † 0.3503	3.854 † 0.2477
8	113	77.239 † 0.3663	3.894 † 0.2591
9	76	77.789 † 0.5158	4.497 † 0.3647
Main Group C₁	310	77.139 † 0.2298	4.047 † 0.1625
10	108	77.250 † 0.3287	3.415 † 0.2324
11	96	77.198 † 0.4260	4.174 † 0.3012
12	55	76.091 † 0.7764	3.533 † 0.3369
13	159	76.503 † 0.2784	3.511 † 0.1969
14	106	77.477 † 0.3719	3.829 † 0.2630
15	142	77.951 † 0.3134	3.735 † 0.2216
16	110	76.791 † 0.3589	3.764 † 0.2537
Main Group C₂	776	77.089 † 0.1340	3.734 † 0.0948
17	44	78.568 † 0.4244	2.800 † 0.3001
18	34	78.059 † 0.6304	3.665 † 0.4458
19	17	78.529 † 0.8095	3.325 † 0.5724
Main Group D	95	78.379 † 0.3245	3.150 † 0.2295
Grand Total	1607	77.325 † 0.0947	3.787 † 0.0670

F.—5

HORIZONTAL CIRCUMFERENCE OF HEAD

TABLE NO. 27

† = Plus Minus

Group	No. of Cases	Mean With Error	St. Deviation With Error
1	110	532.509 † 1.3839	14.4873 † 0.9786
2	63	533.048 † 1.8171	14.3970 † 1.2849
3	62	538.081 † 1.5123	11.8767 † 1.0695
Main Group A	235	534.123 † 0.9129	13.9692 † 0.6456
4	46	535.478 † 1.9656	13.3029 † 1.3899
5	80	530.525 † 1.6782	14.9847 † 1.1865
6	64	534.032 † 1.6887	13.4817 † 1.1940
Main Group B	190	532.905 † 1.0305	14.1792 † 0.7287
7	121	532.876 † 1.4394	15.8070 † 1.0189
8	113	527.557 † 1.4523	15.4143 † 1.0269
9	74	531.013 † 1.3614	11.6799 † 0.9627
Main Group C_1	308	530.477 † 2.6910	14.9085 † 1.9026
10	108	527.972 † 1.4463	15.0216 † 1.0227
11	96	529.594 † 1.7073	16.7040 † 1.2072
12	54	536.822 † 1.8558	13.6107 † 1.3122
13	158	533.342 † 1.2639	16.2330 † 0.9144
14	106	530.311 † 1.4577	14.9829 † 1.0308
15	142	531.563 † 1.1787	14.0220 † 0.8337
16	110	533.764 † 1.4817	15.5160 † 1.0476
Main Group C_2	774	531.778 † 0.5550	15.4152 † 0.3918
17	44	528.227 † 2.8852	19.1115 † 2.0394
18	33	534.364 † 3.0930	17.8755 † 2.2029
19	17	536.530 † 4.3827	18.0489 † 3.0987
Main Group D	94	531.883 † 1.9242	18.6348 † 1.3605
Grand Total	1601	531.963 † 0.3807	15.1923 † 0.2691

1A *Stature in Cm.*   2A *Height of Head (Top-Tragion) in Mm.*

† = Plus Minus

Class-Intervals	No. of Cases Total 1607	Class-Intervals	No. of Cases Total 1607
– 143.5	2	– 102	1
143.6 – 147.5	2	103 & 104	0
147.6 – 149.5	4	105 & 106	1
149.6 – 151.5	13	107 & 108	2
151.6 – 153.5	24	109 & 110	5
153.6 – 155.5	45	111 & 112	5
155.6 – 157.5	103	113 & 114	8
157.6 – 159.5	117	115 & 116	13
159.6 – 161.5	199	117 & 118	31
161.6 – 163.5	239	119 & 120	54
163.6 – 165.5	247	121 & 122	66
165.6 – 167.5	205	123 & 124	92
167.5 – 169.5	170	125 & 126	128
169.6 – 171.5	94	127 & 128	131
171.6 – 173.5	64	129 & 130	187
173.6 – 175.5	47	131 & 132	169
175.6 – 177.5	18	133 & 134	171
177.6 – 179.5	9	135 & 136	148
179.6 – 181.5	2	137 & 138	138
181.6 – 183.5	0	139 & 140	94
183.6 – 185.5	2	141 & 142	65
185.6 – 187.5	1	143 & 144	32
		145 & 146	24
Mean With S. E. 164.007 † 0.1382		147 & 148	17
St. Deviation With S. E. 5.5064 † 0.0978		149 & 150	5
		151 & 152	4
		153 & 154	1
		155 & 156	2
		157 & 158	2
		159 & 160	1
		161 – 168	1
		169 & 170	2
		171 & 172	1

Mean With S. E.   131.386 † 0.1918

St. Deviation With S. E. 7.6360 † 0.1356

3A *Maximum Head-Length in Mm.*   4A *Maximum Head-Breadth in Mm.*

† = Plus Minus

Class-Intervals	No. of Cases Total 1607	Class-Intervals	No. of Cases Total 1608
– 162	2	129	5
163 & 164	3	130 – 131	27
165 & 166	11	132 – 133	32
167 & 168	14	134 – 135	61
169 & 170	27	136 – 137	110
171 & 172	44	138 – 139	164
173 & 174	76	140 – 141	207
175 & 176	107	142 – 143	237
177 & 178	141	144 – 145	189
179 & 180	155	146 – 147	167
181 & 182	175	148 – 149	149
183 & 184	170	150 – 151	100
185 & 186	164	152 – 153	68
187 & 188	145	154 – 155	47
189 & 190	106	156 – 157	25
191 & 192	104	158 – 159	10
193 & 194	65	160 – 161	6
195 & 196	51	162 – 163	2
197 & 198	25	164 – 165	1
199 & 200	8		
201 & 202	5		
203 & 204	7		
205 & 206	0		
207 & 208	1		
209 & 210	1		
214	1		

Mean With S. E.   143.578 † 0.1486
St. Deviation With S. E. 5.9278 † 0.1050

Mean With S. E.   183.227 † 0.1826
St. Deviation With S. E. 7.2964 † 0.1290

5A *Minimum Frontal Breadth in Mm.* 6A *Maximum Bizygomatic Breadth in Mm.*

† = Plus Minus

Class-Intervals	No. of Cases Total 1607	Class-Intervals	No. of Cases Total 1607
– 92	1	– 114	1
93 – 94	5	115 – 116	1
95 – 96	30	117 – 118	0
97 – 98	60	119 – 120	1
99 – 100	168	121 – 122	6
101 – 102	248	123 – 124	18
103 – 104	298	125 – 126	49
105 – 106	288	127 – 128	106
107 – 108	216	129 – 130	130
109 – 110	145	131 – 132	212
111 – 112	88	133 – 134	271
113 – 114	42	135 – 136	235
115 – 116	8	137 – 138	232
117 – 118	8	139 – 140	154
119 – 120	2	141 – 142	92
		143 – 144	64
Mean With S. E. 104.648 † 0.1064		145 – 146	18
St. Deviation With S. E. 4.2234 † 1.0752		147 – 148	13
		149 – 150	2
		151 – 152	2

Mean With S. E. 134.675 † 0.1246

St. Deviation With S. E. 4.9592 † 0.0800

7A *Bigonial Breadth in Mm.*   8A *Interorbital Breadth in Mm.*

† = Plus Minus

Class-Intervals	No. of Cases Total 1608	Class-Intervals	No. of Cases Total 1608
– 85	1	21	2
86 – 87	4	22	4
88 – 89	4	23	2
90 – 91	13	24	17
92 – 93	31	25	57
94 – 95	76	26	95
96 – 97	80	27	149
98 – 99	87	28	208
100 – 101	217	29	245
102 – 103	209	30	270
104 – 105	258	31	186
106 – 107	198	32	140
108 – 109	142	33	86
110 – 111	153	34	95
112 – 113	62	35	24
114 – 115	38	36	17
116 – 117	23	37	8
118 – 119	3	38	1
120 – 121	8	39	–
122 – 123	0	47	–
124 – 125	0		
126 – 127	1		

Mean With S. E.   29.675 † 1.0664

St. Deviation With S. E. 2.6633 † 1.0470

Mean With S. E.   103.070 † 0.1424

St. Deviation With S. E. 5.6794 † 0.1006

9A *Orbito-Nasal Breadth in Mm.*   10A *Orbito-Nasal Arc in Mm.*

† = Plus Minus

Class-Intervals	No. of Cases Total 1607	Class-Intervals	No. of Cases Total 1604
81	2	– 93	1
82 – 83	4	94 – 95	1
84 – 85	31	96 – 97	1
86 – 87	54	98 – 99	3
88 – 89	95	100 – 101	18
90 – 91	245	102 – 103	47
92 – 93	247	104 – 105	61
94 – 95	302	106 – 107	94
96 – 97	240	108 – 109	131
98 – 99	179	110 – 111	200
100 – 101	119	112 – 113	252
102 – 103	53	114 – 115	192
104 – 105	27	116 – 117	169
106 – 107	4	118 – 119	155
108 – 109	4	120 – 121	103
117	1	122 – 123	76
Mean With S. E.	94.418 † 0.1112	124 – 125	60
St. Deviation With S. E.	4.4184 † 0.0786	126 – 127	21
		128 – 129	11
		130 – 131	5
		132 – 133	2
		134 – 135	1
		Mean With S. E.	113.845 † 0.1500
		St. Deviation With S. E.	5.9804 † 0.1060

11A *Nasal Length in Mm.*   12A *Nasal Breadth in Mm.*

Class-Intervals	No. of Cases Total 1607	Class-Intervals	No. of Cases Total 1607
35	1	26	1
36	1	27	1
37	2	28	1
38	4	29	5
39	7	30	18
40	10	31	32
41	19	32	57
42	29	33	108
43	64	34	168
44	83	35	169
45	87	36	226
46	127	37	266
47	156	38	188
48	176	39	155
49	174	40	99
50	149	41	56
51	156	42	30
52	133	43	10
53	73	44	7
54	63	45	4
55	41	46	1
56	20	47	1
57	14	49	4
58	12		
59	3		
60	2		
69	1		

Mean With S. E.   36.505 † 0.0707
St. Deviation With S. E. 2.8331 † 0.0500

Mean With S. E.   48.701 † 0.0941
St. Deviation With S. E. 3.7706 † 0.0665
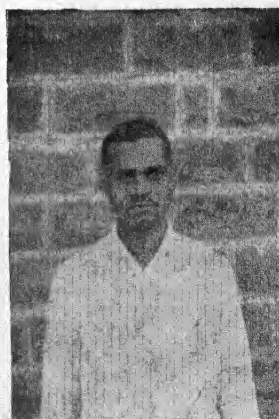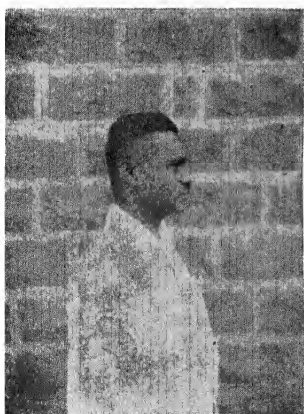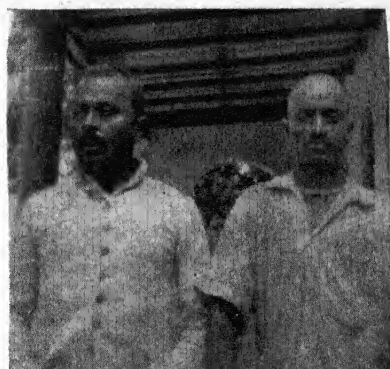
Plate V

MARATHA PHYSICAL TYPES
Upper Two Rows: NIZAM'S STATE
Lower Row: POONA DISTRICT
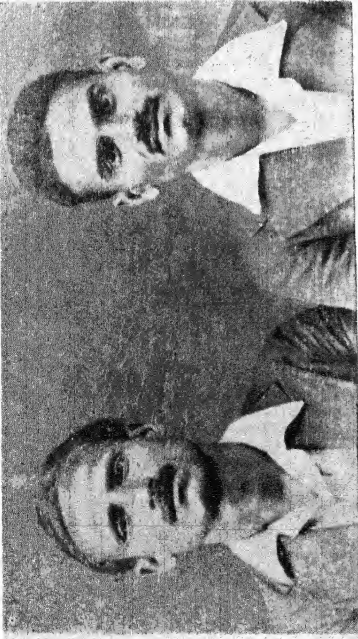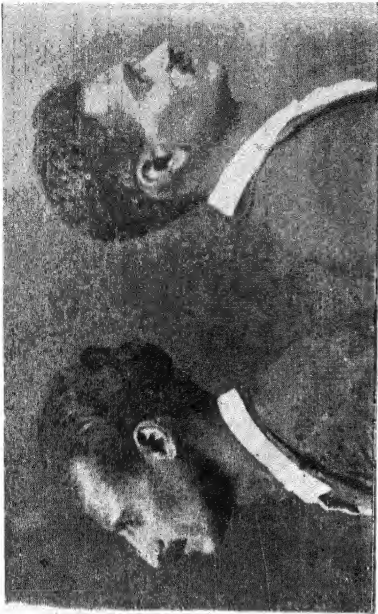
Plate VI

MARATHA PHYSICAL TYPES: SATARA DISTRICT
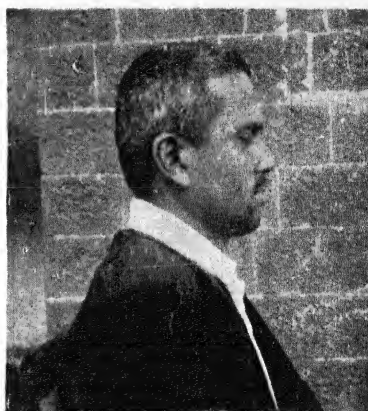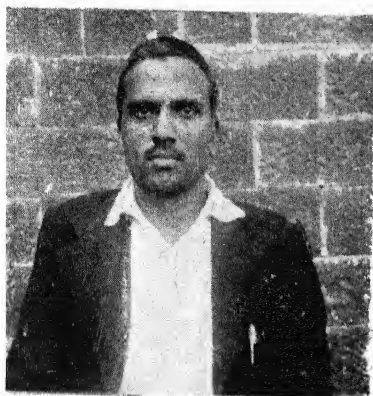
Plate VII

MARATHA PHYSICAL TYPES: KHANDESH

Plate VIII
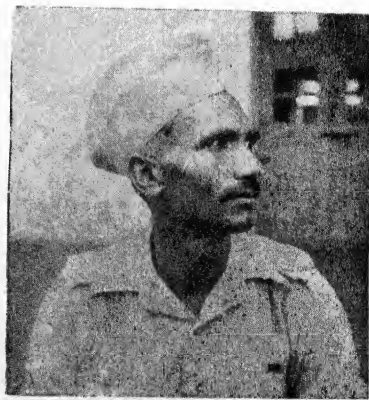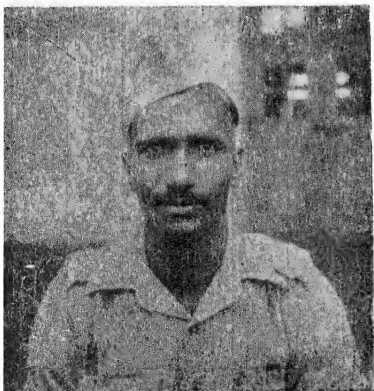
MARATHA PHYSICAL TYPES
Top Row: KURUNDWAD
Middle Row: SANGLI
Bottom Row: MIRAJ

Plate IX

MARATHA PHYSICAL TYPES
Upper Two Rows: SAVANTWADI
Bottom Row: BELGAUM

13A *Upper-Facial Length in Mm.*   14A *Total Facial Length in Mm.*

† = Plus Minus

Class-Intervals	No. of Cases Total 1600	Class-Intervals	No. of Cases Total 1606
48	1	87	1
54	5	93	1
55	8	94 – 95	2
56	12	96 – 97	3
57	21	98 – 99	14
58	21	100 – 101	21
59	36	102 – 103	51
60	67	104 – 105	79
61	85	106 – 107	117
62	107	108 – 109	159
63	129	110 – 111	242
64	130	112 – 113	188
65	151	114 – 115	197
66	148	116 – 117	160
67	155	118 – 119	135
68	114	120 – 121	96
69	102	122 – 123	69
70	91	124 – 125	33
71	73	126 – 127	18
72	57	128 – 129	10
73	30	130 – 131	4
74	24	132 – 133	3
75	15	134 – 135	3
76	11		
78	4	Mean With S. E.	112.977 † 0.1548
79	2	St. Deviation With S. E.	6.1792 † 0.1096
81	1		

Mean With S. E.   65.716 † 0.1070

St. Deviation With S. E. 4.2804 † 0.0757

15A *Length Breadth Index*   16A *Length-Height Index of Head*
(Cephalic Index)

† = Plus Minus

Class-Intervals	No. of Cases Total 1607	Class-Intervals	No. of Cases Total 1604
64.5	1	50.5	1
67.5	1	56.5	1
68.5	9	56.6 – 58.5	1
69.5	14	58.6 – 60.5	7
70.5	29	60.6 – 62.5	19
71.5	29	62.6 – 64.5	57
72.5	74	64.6 – 66.5	101
73.5	75	66.6 – 68.5	180
74.5	82	68.6 – 70.5	274
75.5	131	70.6 – 72.5	283
76.5	135	72.6 – 74.5	243
77.5	133	74.6 – 76.5	181
78.5	123	76.6 – 78.5	121
79.5	134	78.6 – 80.5	70
80.5	121	80.6 – 82.5	30
81.5	105	82.6 – 84.5	14
82.5	81	84.6 – 86.5	5
83.5	95	86.6 – 88.5	2
84.5	60	88.6 – 90.5	3
85.5	48	90.6 – 92.5	1
86.5	36	92.6 – 94.5	0
87.5	31	94.6 – 96.5	1
88.5	16	96.6 – 98.5	1
89.5	18	106.5	1
90.5	9	110.5	1
91.5	10	114.5	1
92.5	2		
93.5	2	Mean With S. E.	71.905 † 0.1266
94.5	1	St. Deviation With S. E.	5.0376 † 0.0896
95.5	1		
96.5	1		

Mean With S. E.   78.522 † 0.1180
St. Deviation With S. E. 4.7211 † 0.0834

17A *Breadth-Height Index of Head*   18A *Trans-Fronto-Parietal Index*

Class-Intervals	No. of Cases Total 1603	Class-Intervals	No. of Cases Total 1606
- 70.5	1	64.5	2
70.6 – 72.5	1	65.5	7
72.6 – 74.5	7	66.5	17
74.6 – 76.5	3	67.5	32
76.6 – 78.5	8	68.5	58
78.6 – 80.5	21	69.5	79
80.6 – 82.5	42	70.5	124
82.6 – 84.5	81	71.5	194
84.6 – 86.5	113	72.5	199
86.6 – 88.5	185	73.5	195
88.6 – 90.5	220	74.5	172
90.6 – 92.5	210	75.5	187
92.6 – 94.5	220	76.5	130
94.6 – 96.5	181	77.5	76
96.6 – 98.5	111	78.5	55
98.6 – 100.5	102	79.5	38
100.6 – 102.5	50	80.5	21
102.6 – 104.5	22	81.5	14
104.6 – 106.5	8	82.5	2
106.6 – 108.5	8	83.5	1
108.6 – 110.5	2	84.5	2
116.5	1	88.5	1
118.5	1		
122.5	1	Mean With S. E.	73.0729 † 0.2499
132.5	1	St. Deviation With S. E.	3.154 † 0.1767

Mean With S. E.   91.788 † 0.1592
St. Deviation With S. E. 6.3438 † 0.1126

19A *Orbito-Nasal Index*   20A *Nasal Index*

† = Plus Minus

Class-Intervals	No. of Cases Total 1603	Class-Intervals	No. of Cases Total 1606
98.5	1	50.5	1
98.6 – 100.5	1	50.6 – 52.5	2
100.6 – 104.5	1	52.6 – 54.5	6
104.6 – 106.5	1	54.6 – 56.5	8
106.6 – 108.5	11	56.6 – 58.5	8
108.6 – 110.5	18	58.6 – 60.5	20
110.6 – 112.5	47	60.6 – 62.5	36
112.6 – 114.5	101	62.6 – 64.5	50
114.6 – 116.5	151	64.6 – 66.5	84
116.6 – 118.5	208	66.6 – 68.5	88
118.6 – 120.5	266	68.6 – 70.5	140
120.6 – 122.5	212	70.6 – 72.5	143
122.6 – 124.5	234	72.6 – 74.5	150
124.6 – 126.5	136	74.6 – 76.5	161
126.6 – 128.5	91	76.6 – 78.5	175
128.6 – 130.5	64	78.6 – 80.5	145
130.6 – 132.5	28	80.6 – 82.5	85
132.6 – 134.5	18	82.6 – 84.5	96
134.6 – 136.5	8	84.6 – 86.5	57
136.6 – 138.5	4	86.6 – 88.5	45
138.6 – 140.5	1	88.6 – 90.5	29
140.6 – 142.5	1	90.6 – 92.5	30
		92.6 – 94.5	17
Mean With S. E. 120.740 † 0.1334		94.6 – 96.5	16
St. Deviation With S. E. 5.3078 † 0.0942		96.6 – 98.5	9
		98.6 – 100.5	2
		104.5	1
		106.5	1
		114.5	1

Mean With S. E.   75.489 † 0.2068
St. Deviation With S. E. 8.2650 † 0.1462

21A *Upper Facial Index*   22A *Total Facial Index*

† = Plus Minus

Class-Intervals	No. of Cases Total 1599	Class-Intervals	No. of Cases Total 1605
36.5	1	62.5	1
36.6 – 38.5	1	70.5	3
39.5	1	71.6 – 72.5	8
40.5	6	72.6 – 74.5	25
41.5	16	74.6 – 76.5	61
42.5	26	76.6 – 78.5	120
43.5	38	78.6 – 80.5	184
44.5	67	80.6 – 82.5	228
45.5	110	82.6 – 84.5	279
46.5	128	84.6 – 86.5	224
47.5	165	86.6 – 88.5	172
48.5	184	88.6 – 90.5	136
49.5	177	90.6 – 92.5	71
50.5	219	92.6 – 94.5	38
51.5	121	94.6 – 96.5	39
52.5	107	96.6 – 98.5	12
53.5	86	98.6 – 100.5	2
54.5	54	100.6 – 102.5	1
55.5	43	102.6 – 104.5	1
56.5	18		
57.5	15	Mean With S. E.	83.996 † 0.1284
58.5	6	St. Deviation With S. E.	5.1152 † 0.0908
59.5	6		
60.5	3		
63.5	1		

Mean With S. E.   48.851 † 0.0863

St. Deviation With S. E. 3.4403 † 0.0610

23A *Trans-Cephalo-Facial Index*   24A *Vertical Cephalo-Facial Index*

† = Plus Minus

Class-Intervals	No. of Cases Total 1600	Class-Intervals	No. of Cases Total 1600
78.5	1	54.5	1
78.6 – 80.5	1	56.5	1
80.6 – 82.5	1	62.5	1
82.6 – 84.5	2	62.6 – 64.5	2
85.5	5	68.5	4
86.5	11	68.6 – 70.5	5
87.5	22	70.6 – 72.5	10
88.5	36	72.6 – 74.5	20
89.5	68	74.6 – 76.5	33
90.5	102	76.6 – 78.5	82
91.5	142	78.6 – 80.5	143
92.5	142	80.6 – 82.5	165
93.5	188	82.6 – 84.5	178
94.5	188	84.6 – 86.5	198
95.5	156	86.5 – 88.5	198
96.5	175	88.6 – 90.5	181
97.5	139	90.6 – 92.5	138
98.5	75	92.6 – 94.5	84
99.5	77	94.6 – 96.5	53
100.5	32	96.6 – 98.5	44
101.5	26	98.6 – 100.5	29
102.5	7	100.6 – 102.5	15
103.5	4	102.6 – 104.6	5
104.5	4	104.6 – 106.5	3
105.5	1	106.6 – 108.5	4
108.5	1	108.6 – 110.5	1
Mean With S. E.	93.954 † 0.0855	110.6 – 112.5	1
St. Deviation With S. E.	3.4155 † 0.0605	126.5	1

Mean With S. E.   86.206 † 0.1654

St. Deviation With S. E.   6.588 † 0.1170

25A *Zygomatico-Frontal Index*   26A *Zygomatico-Mandibular Index*

† = Plus Minus

Class-Intervals	No. of Cases Total 1605	Class-Intervals	No. of Cases Total 1607
70.5	3	65.5	2
71.5	12	66.5	4
72.5	12	67.5	4
73.5	49	68.5	11
74.5	102	69.5	14
75.5	160	70.5	34
76.5	178	71.5	52
77.5	235	72.5	38
78.5	217	73.5	75
79.5	228	74.5	110
80.5	153	75.5	145
81.5	116	76.5	180
82.5	65	77.5	159
83.5	39	78.5	160
84.5	20	79.5	165
85.5	9	80.5	126
86.5	3	81.5	123
87.5	2	82.5	70
88.5	1	83.5	60
95.5	1	84.5	32
		85.5	19
Mean With S. E. 77.804 † 0.0683		86.5	11
St. Deviation With S. E. 2.743 † 0.0487		87.5	9
		88.5	2
		89.5	2

Mean With S. E.   77.3258 † 0.0947

St. Deviation With S. E. 3.787 † 0.0670

27A *Horizontal Circumference of the Head*

† = Plus Minus

Class-Intervals	No. of Cases Total 1601
483	1
483.1 – 486	2
486.1 – 489	1
489.1 – 492	4
492.1 – 495	5
495.1 – 498	1
498.1 – 501	12
501.1 – 504	13
504.1 – 507	37
507.1 – 510	68
510.1 – 513	22
513.1 – 516	76
516.1 – 519	47
519.1 – 522	148
522.1 – 525	129
525.1 – 528	76
528.1 – 531	173
531.1 – 534	69
534.1 – 537	147
537.1 – 540	172
540.1 – 543	34
543.1 – 546	97
546.1 – 549	30
549.1 – 552	100
552.1 – 555	49
555.1 – 558	21
558.1 – 561	26
561.1 – 564	10
564.1 – 567	11
567.1 – 570	8
570.1 – 573	3
573.1 – 576	6

Mean With S. E.   531.963 † 0.3807St. Deviation With S. E. 15.1923 † 0.2691

ANALYSIS OF VARIANCE

TABLE NO. 1B
STATURE

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1606	12392.4169	—	—	—	—	—
2. Between Main Groups	4	146.0019	36.505	4.8119	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	200.5060	14.3219	1.8881	1.68	2.12	2.64
4. All Sub-Groups	18	346.5079	19.2306	2.5378	1.63	1.99	2.44
5. Residual Error	1588	12045.9090	7.5855	1	—	—	—

TABLE NO. 2B
HEIGHT OF HEAD

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1598	23455.8277	—	—	—	—	—
2. Between Main Groups	4	209.8017	51.4504	3.6095	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	724.5803	51.7551	3.6310	1.68	2.12	2.64
4. All Sub-Groups	18	934.3829	51.9100	3.6418	1.63	1.99	2.44
5. Residual Error	1580	22521.4443	14.2541	1	—	—	—

ANALYSIS OF VARIANCE

TABLE NO. 3B
LENGTH OF HEAD

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1607	21520.4969	—	—	—	—	—
2. Between Main Groups	4	952.2494	238.0624	18.9776	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	635.3879	45.3851	3.6184	1.68	2.12	2.64
4. All Sub-Groups	18	1587.6373	88.2023	7.0311	1.63	1.99	2.44
5. Residual Error	1589	19932.8596	12.5443	1	—	—	—

TABLE NO. 4B
BREADTH OF HEAD

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1606	14241.3192	—	—	—	—	—
2. Between Main Groups	4	524.0600	131.0150	15.7464	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	504.0662	36.0049	4.3266	1.68	2.12	2.64
4. All Sub-Groups	18	1028.1262	57.1184	6.8648	1.63	1.99	2.44
5. Residual Error	1588	13213.1930	8.3206	1	—	—	—

ANALYSIS OF VARIANCE

TABLE NO. 5B

MIN. FRONTAL BREADTH

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1607	7295.0118	—	—	—	—	—
2. Between Main Groups	4	19.3834	4.8459	1.0705	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	82.5087	5.8935	1.3019	1.68	2.12	2.64
4. All Sub-Groups	18	101.8921	5.66.6	.1.2505	1.63	1.99	2.44
5. Residual Error	1589	7193.1197	4.5268	1	—	—	—

TABLE NO. 6B

MAX. BIZYGOMATIC BREADTH

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1606	10007.4661	—	—	—	—	—
2. Between Main Groups	4	227.3355	56.8339	9.4783	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	258.7588	18.4829	3.0821	1.68	2.12	2.64
4 All Sub-Groups	18	486.0943	27.0050	4.5031	1.63	1.99	2.44
5. Residual Error	1588	9521.3718	5.9958	1	—	—	—

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ANALYSIS OF VARIANCE

TABLE NO. 7B

BIGONIAL BREADTH

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1607	13091.5498	—	—	—	—	—
2. Between Main Groups	4	148.7865	37.1966	4.6457	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	218.9736	15.6411	1.9532	1.68	2.12	2.64
4. All Sub-Groups	18	367.7601	20.4311	2.5514	1.63	1.99	2.44
5. Residual Error	1589	12723.7897	8.0074	1	—	—	—

TABLE NO. 8B

INTER-ORBITAL BREADTH

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1607	11398.8949	—	—	—	—	—
2. Between Main Groups	4	133.1920	33.2930	4.8011	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	244.4284	17.4593	2.5173	1.68	2.12	2.64
4. All Sub-Groups	18	377.6204	20.9789	3.0248	1.63	1.99	2.44
5. Residual Error	1589	11021.2745	6.9360	1	—	—	—

ANALYSIS OF VARIANCE
TABLE NO. 9B
ORBITO-NASAL BREADTH

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1605	7971.2894	—	—	—	—	—
2. Between Main Groups	4	205.8852	51.4713	10.9836	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	323.9260	23.1377	4.9381	1.68	2.12	2.64
4. All Sub-Groups	18	529.8112	29.4339	6.2803	1.63	1.99	2.44
5. Residual Error	1588	7441.4782	4.6861	1	—	—	—

TABLE NO. 10B
ORBITO-NASAL ARC

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1603	14465.1640	—	—	—	—	—
2. Between Main Groups	4	808.7831	202.1958	24.5376	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	595.3415	42.5246	5.1599	1.68	2.12	2.64
4. All Sub-Groups	18	1404.1246	78.0067	9.4668	1.63	1.99	2.44
5. Residual Error	1585	13061.0394	8.2404	1	—	—	—

ANALYSIS OF VARIANCE

TABLE NO. 11B

NASAL LENGTH

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1606	22873.0293	—	—	—	—	—
2. Between Main Groups	4	1002.7940	250.6985	18.9144	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	822.1557	58.7258	4.4310	1.68	2.12	2.64
4. All Sub-Groups	13	1824.9497	101.3862	7.6495	1.63	1.99	2.44
5. Residual Error	1588	21048.0796	13.2544	—	—	—	—

TABLE NO. 12B

NASAL BREADTH

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1606	12889.7150	—	—	—	—	—
2. Between Main Groups	4	168.2914	42.0729	5.3508	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	235.8894	16.8494	2.1431	1.68	2.12	2.64
4. All Sub-Groups	18	404.1808	22.4545	2.8553	1.62	1.99	2.44
5. Residual Error	1588	12485.5342	7.8624	1	—	—	—

ANALYSIS OF VARIANCE

TABLE NO. 13B

UPPER FACIAL LENGTH

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1599	29296.3100	—	—	—	—	—
2. Between Main Groups	4	357.4515	89.3629	5.1182	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	1335.8886	95.4213	5.4653	1.68	2.12	2.64
4. All Sub-Groups	18	1693.3401	94.0745	5.3880	1.63	1.99	2.44
5. Residual Error	1581	27602.9699	17.4592	—	—	—	—

TABLE NO. 14B

TOTAL FACIAL LENGTH

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1605	15453.6619	—	—	—	—	—
2. Between Main Groups	4	261.4754	65.3689	6.9488	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	262.7007	18.7644	1.9942	1.68	2.12	2.64
4. All Sub-Groups	18	524.1761	29.1211	3.0955	1.63	1.99	2.44
5. Residual Error	1587	14929.4858	9.4074	1	—	—	—

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ANALYSIS OF VARIANCE

TABLE NO. 15B

INDEX OF HEAD (CEPHALIC INDEX)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1606	35928.9658	—	—	—	—	—
2. Between Main Groups	4	1712.6245	428.1311	20.6107	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	1245.9724	88.9930	4.2845	1.68	2.12	2.64
4. All Sub-Groups	18	2958.5969	164.3565	7.9130	1.63	1.99	2.44
5. Residual Error	1588	32970.3689	20.7722	1	—	—	—

TABLE NO. 16B

LENGTH—HEIGHT—INDEX OF HEAD

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1603	10303.1490	—	—	—	—	—
2. Between Main Groups	4	103.3760	25.8440	4.1167	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	251.0085	17.9292	2.8565	1.68	2.12	2.64
4. All Sub-Groups	18	354.3845	19.6380	3.1369	1.63	1.99	2.44
5. Residual Error	1585	9948.7645	6.2768	1	—	—	—

ANALYSIS OF VARIANCE

TABLE NO. 17B

BREADTH—HEIGHT—INDEX—HEAD

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F'	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1602	16251.7118	—	—	—	—	—
2. Between Main Groups	4	522.4693	130.6173	13.4820	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	398.4900	28.4636	2.9375	1.68	2.12	2.64
4. All Sub-Groups	18	920.9593	51.1644	5.2805	1.63	1.99	2.44
5. Residual Error	1584	15330.7525	9.6885	1	—	—	—

TABLE NO. 18B

TRANS-FRONTO-PARIETAL INDEX

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F'	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1605	16094.4764	—	—	—	—	—
2. Between Main Groups	4	352.4234	88.1059	9.694	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	324.2406	23.1600	2.3839	1.68	2.12	2.64
4. All Sub-Groups	18	676.6640	37.5924	3.8693	1.63	1.99	2.44
5. Residual Error	1587	15417.8124	9.7151	1	—	—	—

ANALYSIS OF VARIANCE

TABLE NO. 19B

ORBITO-NASAL INDEX

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1602	11411.6332	—	—	—	—	—
2. Between Main Groups	4	599.0502	149.7625	22.7409	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	381.1524	27.2252	4.1348	1.68	2.12	2.64
4. All Sub-Groups	18	980.2026	54.4557	8.2697	1.63	1.99	2.44
5. Residual Error	1584	10431.4306	6.5855	1	—	—	—

TABLE NO. 20B

NASAL INDEX

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1605	27542.9496	—	—	—	—	—
2. Between Main Groups	4	1101.4371	275.3593	16.7399	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	336.3656	24.0261	1.4608	1.68	2.12	2.64
4. All Sub-Groups	18	1437.8027	79.8779	4.8561	1.63	1.99	2.44
5. Residual Error	1587	26105.1469	16.4494	1	—	—	—

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ANALYSIS OF VARIANCE

TABLE NO. 21B

UPPER-FACIAL INDEX

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1598	19269.7685	—	—	—	—	—
2. Between Main Groups	4	224.0149	56.0037	4.7993	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	609.6651	43.5475	3.7323	1.68	2.12	2.64
4. All Sub-Groups	18	833.6800	46.3156	3.9697	1.63	1.99	2.44
5. Residual Error	1580	18436.0885	11.6684	1	—	—	—

TABLE NO. 22B

TOTAL-FACIAL INDEX

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1604	10625.3059	—	—	—	—	—
2. Between Main Groups	4	392.4438	93.1110	15.6543	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	292.9362	20.9240	3.3380	1.68	2.12	2.64
4. All Sub-Groups	18	685.3800	38.0767	6.0760	1.63	1.99	2.44
5. Residual Error	1586	9939.9259	6.2673	1	—	—	—

ANALYSIS OF VARIANCE

TABLE NO. 23B

TRANS-CEPHALO-FACIAL INDEX

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F'	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1605	18856.5903	—	—	—	—	—
2. Between Main Groups	4	127.8277	31.9569	2.7447	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	249.4608	17.8186	1.5304	1.68	2.12	2.64
4. All Sub-Groups	18	377.2985	20.9610	1.8000	1.63	1.99	2.44
5. Residual Error	1587	18479.2918	11.6441	1	—	—	—

TABLE NO. 24B

VERTICAL CEPHALO-FACIAL INDEX

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1599	17483.4844	—	—	—	—	—
2. Between Main Groups	4	21.6107	5.4027	0.5011	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	424.6792	30.3342	2.8145	1.68	2.12	2.64
4. All Sub-Groups	18	446.2899	24.7938	2.3004	1.63	1.99	2.44
5. Residual Error	1581	17037.1945	10.7762	1	—	—	—

ANALYSIS OF VARIANCE
TABLE NO. 25B
ZYGOMATICO-FRONTAL INDEX

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1604	12197.1776	—	—	—	—	—
2. Between Main Groups	4	193.9314	48.4829	6.5067	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	186.3601	13.3114	1.7864	1.68	2.12	2.64
4. All Sub-Groups	18	380.2915	21.1273	2.8360	1.63	1.99	2.44
5. Residual Error	1586	11816.8861	7.4507	1	—	—	—

TABLE NO. 26B
ZYGOMATICO-MANDIBULAR INDEX

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1606	23164.4394	—	—	—	—	—
2. Between Main Groups	4	207.7813	51.9453	3.6554	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	388.1693	27.7264	1.9512	1.68	2.12	2.64
4. All Sub-Groups	18	595.9506	33.1084	2.3297	1.63	1.99	2.44
5. Residual Error	1588	22568.4888	14.2119	—	—	—	—

ANALYSIS OF VARIANCE
TABLE NO. 27B
HORIZONTAL CIRCUMFERENCE OF HEAD

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
1. Total No. of Observations	1600	41229.9838	—	—	—	—	—
2. Between Main Groups	4	223.1926	55.7982	2.2082	2.37	3.32	4.62
3. Between Sub-Groups Within Main Groups	14	1040.9016	74.3501	2.9424	1.68	2.12	2.64
4. All Sub-Groups	18	1264.0942	70.2275	2.7793	1.63	1.99	2.44
5. Residual Error	1532	39965.8946	25.2629	1.	—	—	—

A glance at the tables showing the analysis of variance for all measurements makes it clear that almost every measurement shows significant group differences. The variance between the five main groups is, however, many times greater than that between the sub-groups within each main group. The greatest and the most consistent difference is between the main groups A and C₂ as is revealed by the tables. The two groups belong to distinct regions, namely, the Seaboard and the Deccan Plateau. Some important measurements and indices are given below for purposes of easy comparison.

	Group A (The Seaboard)	Group C₂ (The Deccan Plateau)
Average Height	164.976 cm.	164.155 cm.
Height of Head	131.944 mm.	131.140 mm.
Length of Head	185.738 mm.	182.563 mm.
Breadth of Head	141.218 mm.	144.436 mm.
Bizygomatic Breadth	133.355 mm.	135.345 mm.
Bigonial Breadth	103.377 mm.	104.281 mm.
Inter-Orbital Breadth	30.157 mm.	29.659 mm.
Nasal Length	47.557 mm.	48.447 mm.
Nasal Breadth	37.285 mm.	36.371 mm.
Upper Facial Length	65.124 mm.	66.031 mm.
Total Facial Length	113.572 mm.	112.649 mm.
Cephalic Index	76.188	79.264
Nasal Index	78.862	75.541
Upper Facial Index	48.84	48.83
Total Facial Index	85.329	83.314

The picture of each group that emerges is as follows: The seaboard group is of medium height (65.5 inches). It has a long and narrow head. The face is also narrow but the chin is well developed, though the measurement for the upper facial length is less than that for the other group, the measurement for the total facial length which includes the chin is greater than that for the highland group. The bigonial measurements are almost the same for both the groups, which also emphasises the development of the lower jaw in the Konkan group. The root of the nose is broader, the eyes slightly more apart than in the other group. The nose is both shorter and broader. The group representing the Deccan Plateau (C₂) is also of the same average height. The head is shorter and broader, the average cephalic index being almost 80. The root is longer and narrower than that of the

seaboard group. Corresponding to the head breadth, the upper jaw is slightly broader. But the breadth is offset by the upper facial length so that the upper facial index is almost identical for the two groups. The chin is small and the lower jaw is comparatively less strong. The other groups approach the plateau type as regards cephalic index and nasal index but show variations now in this direction and now in the other.

These results suggest that a more detailed scrutiny of the data may bring forth a regional distribution in such a way that alignment of the groups in the transitional region either to group A or to group C_2 might become possible. It is also necessary to classify data according to the theory of the ninety-six clans and find out whether there is any difference between those belonging to the ninety-six clans and those who are outside them and whether each group is homogeneous within itself without reference to the region it comes from. Data are being collected about other castes in these and other regions and will be available for purposes of comparison in the near future. It is proposed to carry on the above investigation when dealing with the data for the other castes.

As regards other physical features, the analysis of blood-groups is given in the following tables. Also the gene frequencies and the analysis of variance for different regions and sub-regions are given.

BLOOD-GROUP DISTRIBUTION

TABLE NO. 1

Blood Groups	Total	Observed Frequencies				Observed Frequencies				Frequencies of Genes		
		O	A	B	AB	O	A	B	AB	$p=1-\sqrt{O+B}$	$q=1-\sqrt{O+A}$	$r=1-\sqrt{O}$
1	88	42	29	13	4	.4773	.3293	.1479	.0455	.2093	.1019	.6909
2	55	25	17	11	2	.4545	.3091	.2000	.0364	.2002	.1262	.6742
3	55	23	13	12	7	.4181	.2364	.2182	.1273	.2023	.1910	.6467
Total Group A	198	90	59	36	13	.4545	.2980	.1818	.0657	.2023	.1325	.6742
4	33	10	7	15	1	.3030	.2121	.4546	.0303	.1296	.2823	.5505
5	38	17	9	10	2	.4474	.2368	.2632	.0526	.1570	.1738	.6689
6	45	13	15	15	2	.2890	.3333	.3333	.0444	.2111	.2111	.5380
Total Group B	116	40	31	40	5	.3447	.2675	.3447	.0431	.1967	.2176	.5872
7	85	48	17	16	4	.5647	.2000	.1882	.0471	.1323	.1255	.7515
8	46	17	14	13	2	.3696	.3044	.2826	.0434	.1924	.1790	.6079
9	63	27	25	8	3	.4286	.3968	.1270	.0476	.2546	.0915	.6547
Total Group C_2	194	92	56	37	9	.4742	.2887	.1907	.0464	.1846	.1266	.6888
10	53	24	11	14	4	.4528	.2075	.2642	.0755	.1532	.1874	.6729
11	64	21	17	17	9	.3282	.2656	.2656	.1406	.2294	.2294	.5728
12	45	21	10	13	1	.4667	.2222	.2889	.0222	.1307	.2261	.6831
13	133	56	41	28	8	.4211	.3083	.2105	.0601	.2053	.1459	.6489
14	88	23	32	25	8	.2614	.3636	.2841	.0909	.2614	.2094	.5113
15	129	63	42	20	4	.4884	.3256	.1550	.0310	.1979	.0978	.6988
16	60	32	11	14	3	.5334	.1833	.2333	.0500	.1244	.1534	.7303
Total Group C_4	572	240	164	131	37	.4195	.2868	.2290	.0647	.1947	.1594	.6477
17	41	11	8	14	8	.2683	.1951	.3415	.1951	.2191	.3193	.5180
18	29	10	5	13	1	.3448	.1724	.4483	.0345	.1094	.2808	.5872
19	15	4	6	4	1	.2667	.4000	.2667	.0667	.2696	.1835	.5164
Total Group D	85	25	19	31	10	.2941	.2235	.3647	.1177	.1884	.2806	.5423
Grand Total	1165	487	329	275	74	.4180	.2824	.2361	.0635	.1912	.1631	.6466

BLOOD GROUPS

TABLE NO. 2

TEST OF HOMOGENEITY AMONG REGIONS AND SUB-REGIONS, BY ANGULAR TRANSFORMATION OF PERCENTAGES

	Degrees of Freedom	Sum of Squares	Variance Ratio F	Level of Significance .05	Level of Significance .01	Level of Significance .001
Blood Group B						
Between Regions	4	16,003.95	4.875	2.37	3.32	4.62
Between Sub-Regions	18	33,305.92	2.254	1.63	1.99	2.44
Blood Group O						
Between Regions	4	9,784.84	2.98	2.37	3.32	4.62
Between Sub-Regions	18	31,325.95	2.12	1.63	1.99	2.44
Blood Group $\frac{B}{B+O}$						
Between Regions	4	17,576.68	5.355	2.37	3.32	4.62
Between Sub-Regions	18	35,201.39	2.382	1.63	1.99	2.44

The table shows that there are no great differences as regards the ratio $\dfrac{A}{A+0}$. The distribution for the blood-group B and O, however, shows very marked variations for different regions. Here also the variance for sub-regions within the larger groups is smaller than that between the five main regions. In certain respects the larger regions show similarities of distribution. Group A and C₂, that is, the Konkan and the Deccan groups, show no great difference as regards blood-groups. Khandesh samples are the lowest in B frequencies and highest for O. Group B, (the hilly region) shows a decline in O and a corresponding increase in B. The highest concentration of B and the lowest percentage of O is found in Karnatak and the Nizam's Dominions. Nowhere is the percentage frequency for the *q* gene more than thirty and the percentage frequency for the *r* gene less than fifty; in most cases it is above 60 per cent.

As regards skin-colour, the forehead is decidedly darker than the forearm. Though in the majority of cases the skin-colour is generally medium brown, that is, Nos. 15 and 16 on von Luschan's scale.

COLOUR OF FOREHEAD

TABLE NO. 1

Group	No. of Cases	Medium	Dark	Very Dark
1	110	—	97	13
2	63	—	58	5
3	62	—	44	18
Main Group A	235	—	199	36
4	47	8	37	2
5	80	6	67	7
6	64	8	54	2
Main Group B	191	22	158	11
7	121	6	90	25
8	113	2	76	35
9	76	3	59	14
Main Group C₁	310	11	225	74
10	108	1	66	41
11	96	2	58	36
12	55	2	42	11
13	159	4	134	21
14	106	3	96	7
15	143	4	105	34
16	110	2	68	40
Main Group C₂	777	18	569	190
17	44	0	23	21
18	34	0	23	11
19	17	0	11	6
Main Group D	95	0	57	38
Grand Total	1608	51	1208	349

VON LUSCHAN'S TABLET

Nos. 10 and 15	....	Medium Dark
Nos. 16, 17 and 18	....	Dark
Nos. 22, 23 and 28	....	Very Dark

SKIN COLOUR
TABLE NO. 2
COLOUR OF UPPER ARM

Group	No. of Cases	Medium	Dark	Very Dark
1	110	82	26	2
2	63	42	18	2
3	62	31	31	1
Main Group A	235	155	75	5
4	47	37	10	0
5	80	1	61	190
6	64	54	9	1
Main Group B	191	152	38	1
7	121	72	41	8
8	113	64	34	15
9	76	46	22	8
Main Group C_1	310	182	97	31
10	108	54	45	9
11	96	51	40	5
12	55	37	18	—
13	159	99	60	—
14	106	80	26	—
15	143	89	50	4
16	110	66	41	3
Main Group C_2	777	476	280	21
17	44	10	21	13
18	34	16	18	—
19	17	11	4	2
Main Group D	95	37	43	15
Grand Total	1608	1002	533	73

VON LUSCHAN'S COLOUR TABLET

Nos. 10 to 15	....	Medium
Nos. 16, 17, 18	....	Dark
Nos. 22, 23, 28	....	Very Dark

SKIN COLOUR
TABLE NO. 3
(Showing Percentage Frequency From Table No. 2)

Main Group	Medium	Dark	Very Dark
1. A	66	32	2
2. B	78.5	19.8	0.6
3. C_1	58.8	31.2	10
4. C_2	61.2	36	2.7
5. D	39	45.2	15.8

The Khandesh and Karnatak samples are darker than the other samples, for which I believe the environment is responsible. In Konkan, Maval, parts of Poona and Satara, the climate is humid and the temperature rarely above one hundred, so that people have a pale skin,* whereas on the upland plateau where the climate is very dry and the heat intense, a person tans rapidly. The paler hill Marathas and the darker Khandesh Marathas thus may not differ genetically as regards skin-colour. A few people possess a very light and rosy skin.

The eye-colour is predominantly dark brown or black, a few possess light brown eyes and an extremely small number show a greenish tinge in the brown. Older people, that is, those above the age of forty, begin to show a blue outer ring in the dark brown iris though this phenomenon is not seen

EYE COLOUR
TABLE NO. 1
MARTIN'S AUGENFARBEN TAFEL

Group F	Cases	Greenish Brown	Brown	Black
1	110	7	77	26
2	63	0	47	16
3	62	5	41	20
Main Group A	235	8	165	62
4	47	2	31	14
5	80	1	64	15
6	64	6	38	20
Main Group B	191	9	133	49
7	121	5	91	25
8	113	4	90	19
9	76	0	61	15
Main Group C_1	310	9	242	59
10	108	2	90	16
11	96	2	72	22
12	55	7	31	17
13	159	8	124	27
14	106	3	86	17
15	143	3	107	33
16	110	5	73	32
Main Group C_2	777	30	583	164
17	44	1	36	7
18	34	2	23	9
19	17	0	14	3
Main Group D_3	95	3	73	19
Grand Total	1608	59	1196	353

Nos. 6, 7, 8, 9, 10 and 11	Greenish Brown
Nos. 12, 13, 14 and 15	Brown
No. 16	Black

*My Konkan sample was taken from soldiers and shows greater tan than would have been the case otherwise.

· EYE COLOUR

TABLE NO. 2

(Showing Percentage of Main Groups)

Group	Greenish Brown	Brown	Black
1. A	3.3	70.0	26.3
2. B	4.7	69.6	25.6
3. C_1	2.9	78.0	19.0
4. C_2	3.8	75.0	21.1
5. D	3.1	76.8	20.0

in the case of those possessing black eyes. The distribution for various eye-colours according to Martin's Augenfarben Tafel is given below.

As regards the hair-colour, it is always black or extremely dark brown. The hair is sometimes curly, but never shows very tight curls. The beard and moustache in many samples is very scanty and very rarely do Marathas show the hairiness of Sikhs. All the men I measured were above twenty-two years in age and yet I have an impression that those below twenty-five had decidedly less hair than those above. A rural population shaving but infrequently showed less beard-growth than soldiers who had to shave daily. However, no quantitative measure for this feature can be given and only a general impression remains that though some Marathas do possess ample beards and hair on their arms and legs, they are decidedly not one of the very hairy races of the world.

Marathas show neither alveolar prognathy nor genuine prognathy involving the whole of the lower portion of the face. The cheek bones are not prominent, though sometimes broad faces are met with.

It will not be an exaggeration to say that no Maratha is snub-nosed. The plateau Marathas have generally very prominent noses. In some cases the bridge of the nose may be slightly curved and the tip fleshy, but this is not the general rule. The noses are sometimes convex but an upturned nose is never found. The Konkan Marathas who have a higher nasal index also never have snub-noses. The root of the nose is high, the nose is short and sometimes broad but the back is always straight. The pert, upturned nose is very rarely found.

The Marathas have a slight build and well moulded features. The tallness and stoutness of frame and the ruggedness of features of the northern people are almost entirely absent. It is also rare to find a really fat Maratha. They are generally lean and wiry. Among some the legs are thin, and the calves scantily developed.

Thick lips are also a great rarity among this people. Generally the lips are of medium fulness and in some cases very well moulded.

It would thus seem as if the Marathas are a mediterranoid people who have taken up two further elements in their racial make-up during their long occupation of the Maratha country. One element is very probably primitive Veddoid* and the other, apparently a later one, is some broad-headed strain which cannot be identified at present.

*The term primitive Veddoid needs further explanation. The photographs of the so-called Veddoid people range from a generally europoid face with scanty, wavy hair to broad negrito faces with curly hair. Pure negritos are absent in the Maratha hill ranges and the Veddoid strain shows itself in small stature, small, thin bones, thin legs, a long face, medium nose, very small head and the typical Veddoic "goat's" beard.